JVC

GR-DVL150EG/EK, DVL450EG

No. 86613

S40894

JVC

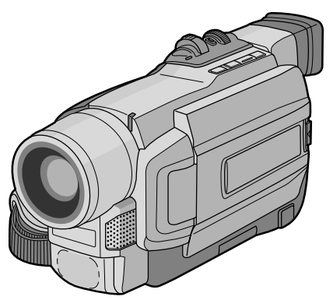
VICTOR COMPANY OF JAPAN, LIMITED
VIDEO DIVISION

JVC

SERVICE MANUAL

DIGITAL VIDEO CAMERA

GR-DVL150EG/EK, DVL450EG



Mini DV PAL

SPECIFICATIONS *(The specifications shown pertain specifically to the model GR-DVL150/157/355/357/450/555/557)*

Camcorder

For General

Power supply	: DC 11.0 V ⎓ (Using AC Adapter) DC 7.2 V ⎓ (Using battery pack)
Power consumption	
LCD monitor off, viewfinder on	: Approx. 4.3 W
LCD monitor on, viewfinder off	: Approx. 5.3 W
Video light	: Approx. 3.5 W
Dimensions (W x H x D)	: 83 mm x 97 mm x 188 mm (3-5/16" x 3-7/8" x 7-7/16") (with the LCD monitor closed and the viewfinder pushed down)
Weight	: Approx. 610 g (1.4 lbs) (GR-DVL915) Approx. 600 g (1.4 lbs) (GR-DVL815) Approx. 590 g (1.3 lbs) (GR-DVL510/DVL310)
Operating temperature	: 0°C to 40°C (32°F to 104°F)
Operating humidity	: 35% to 80%
Storage temperature	: –20°C to 50°C (–4°F to 122°F)
Pickup	: 1/4" CCD
Lens	: F 1.8, f = 3.6 mm to 36 mm, 10:1 power zoom lens
Filter diameter	: ø37 mm
LCD monitor	: 3.5" diagonally measured, LCD panel/TFT active matrix system (GR-DVL915) 3" diagonally measured, LCD panel/TFT active matrix system (GR-DVL815) 2.5" diagonally measured, LCD panel/TFT active matrix system (GR-DVL510/DVL310)
Viewfinder	: Electronic viewfinder with 0.44" color LCD (GR-DVL915/DVL815) Electronic viewfinder with 0.24" black/white LCD (GR-DVL510/DVL310)
Speaker	: Monaural

For Digital Video Camera

Format	: DV format (SD mode)
Signal format	: NTSC standard
Recording/Playback format	: Video: Digital component recording : Audio: PCM digital recording, 32 kHz 4-channel (12-bit), 48 kHz 2-channel (16-bit)
Cassette	: Mini DV cassette
Tape speed	: SP: 18.8 mm/s LP: 12.5 mm/s
Maximum recording time (using 80 min. cassette)	: SP: 80 min. LP: 120 min.

For Digital Still Camera (GR-DVL915/DVL815/DVL510 only)

Storage media	: SD Memory Card/MultiMediaCard
Compression system	: JPEG (compatible)
File size	: VGA (640 x 480 pixels)
Picture quality	: 2 modes (FINE/STANDARD)
Approximate number of storable images	
with memory card [8 MB] (provided with GR-DVL510 only)	
FINE	: 100
STANDARD	: 200
with memory card [16 MB] (provided with GR-DVL915/DVL815 only)	
FINE	: 200
STANDARD	: 400
with memory card [32 MB] (optional)	
FINE	: 400
STANDARD	: 800
with memory card [64 MB] (optional)	
FINE	: 800
STANDARD	: 1600

For Connectors

S-Video	
Output	: Y : 1 V (p-p), 75 Ω, analog C : 0.29 V (p-p), 75 Ω, analog
Input (GR-DVL915 only)	: Y : 0.8 V (p-p) – 1.2 V (p-p), 75 Ω, analog C : 0.2 V (p-p) – 0.4 V (p-p), 75 Ω, analog
AV	
Video output	: 1 V (p-p), 75 Ω, analog
Video input (GR-DVL915 only)	: 0.8 V (p-p) – 1.2 V (p-p), 75 Ω, analog
Audio output	: 300 mV (rms), 1 kΩ, analog, stereo
Audio input (GR-DVL915 only)	: 300 mV (rms), 50 kΩ, analog, stereo
DV	
Output	: 4-pin, IEEE 1394 compliant
Input	: 4-pin, IEEE 1394 compliant
USB (GR-DVL915/DVL815/DVL510 only)	: 5-pin
PC (DIGITAL PHOTO) (GR-DVL310 only)	: ø2.5 mm, 3-pole
EDIT (GR-DVL915/DVL815/DVL510 only)	: ø3.5 mm, 2-pole
JLIP (GR-DVL310 only)	: ø3.5 mm, 4-pole

AC adapter AP-V10U

Power requirement	
U.S.A. and Canada	: AC 120 V ∿, 60 Hz
Other countries	: AC 110 V to 240 V ∿, 50 Hz/60 Hz
Output	: DC 11 V ⎓ , 1 A
Dimensions (W x H x D)	: 59 mm x 31 mm x 84 mm (2-3/8" x 1-1/4" x 3-5/16")
Weight	: Approx. 130 g (0.29 lbs.)

Specifications shown are for SP mode unless otherwise indicated. E & O.E. Design and specifications subject to change without notice.

Printed in Japan

This service manual is printed on 100% recycled paper.
COPYRIGHT © 2001 VICTOR COMPANY OF JAPAN, LTD.

No. 86613
February 2001

TABLE OF CONTENTS

Section Title Page

Important Safety Precautions

INSTRUCTIONS
Refer to MANUAL No. 86614

1. DISASSEMBLY

1.1 BEFORE ASSEMBLY AND DISASSEMBLY 1-1
1.1.1 Precautions 1-1
1.1.2 Assembly and disassembly 1-1
1.1.3 Destination of connectors 1-1
1.1.4 Disconnection of Connectors (Wires) 1-1
1.2 JIGS AND TOOLS REQUIRED FOR DISASSEMBLY, ASSEMBLY AND ADJUSTMENT 1-2
1.2.1 Tools required for adjustments 1-2
1.3 DISASSEMBLY/ASSEMBLY OF CABINET PARTS AND BOARD ASSEMBLY 1-2
1.3.1 Disassembly flow chart 1-2
1.3.2 Disassembly method 1-3
1.4 ⑬ MONITOR ASSEMBLY 1-8
1.4.1 Disassembly/assembly of monitor assembly (for 2.5”-type LCD) 1-8
1.4.2 Disassembly/assembly of hinge assembly (for 2.5”-type LCD) 1-8
1.4.3 Disassembly/assembly of monitor assembly (for 3.5”-type LCD) 1-9
1.4.4 Disassembly/assembly of hinge assembly (for 3.5”-type LCD) 1-9
1.5 ⑪ E. VF ASSEMBLY 1-10
1.5.1 Disassembly/assembly of E. VF assembly (for B/W VF) 1-10
1.5.2 Disassembly/assembly of E. VF assembly (for COLOR VF) 1-11
1.6 DISASSEMBLY/ASSEMBLY OF OP BLOCK ASSEMBLY/CCD BOARD ASSEMBLY 1-12
1.6.1 Precautions 1-12
1.6.2 How to remove CCD board assembly and CCD base assembly 1-12
1.6.3 How to assemble CCD base assembly and CCD board assembly 1-12
1.6.4 Replacement of Service Repair Parts 1-12
1.7 EMERGENCY DISPLAY 1-13
1.8 SERVICE NOTE 1-14

2. MECHANISM ADJUSTMENT

2.1 PRELIMINARY REMARKS ON ADJUSTMENT AND REPAIR .. 2-1
2.1.1 Precautions 2-1
2.1.2 Notes on procedure for disassemby/assembly 2-1
2.2 JIGS AND TOOLS REQUIRED FOR DISASSEMBLY, ASSEMBLY AND ADJUSTMENT 2-2
2.2.1 Tools required for adjustments 2-2
2.3 DISASSEMBLY/ASSEMBLY OF MECHANISM ASSEMBLY 2-3
2.3.1 General statement 2-3
2.3.2 Explanation of mechanism mode 2-3
2.3.3 Mechanism timing chart 2-4
2.4 DISASSEMBLY/ASSEMBLY OF MECHANISM ASSEMBLY 2-5
2.4.1 Follow chart 2-5
2.4.2 Disassembly/assembly 2-8
2.4.3 List of procedures for disassembly 2-14
2.5 CHECKUP AND ADJUSTMENT OF MECHANISM PHASE .. 2-15
2.6 MECHANISM ADJUSTMENTS 2-16
2.6.1 Assembling slide deck assembly and main deck assembly 2-16
2.6.2 Locating tension pole 2-17
2.7 SERVICE NOTE 2-18
2.8 JIG CONNECTOR CABLE CONNECTION 2-20

3. ELECTRICAL ADJUSTMENT

3.1 PRECAUTION 3-1
3.2 SETUP 3-2

4. CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM 4-1
CIRCUIT BOARD NOTES 4-2
4.1 BOARD INTERCONNECTIONS 4-3
4.2 SYSCON SCHEMATIC DIAGRAM 4-5
4.3 PC IF SCHEMATIC DIAGRAM 4-7
4.4 VTR CPU SCHEMATIC DIAGRAM 4-9
4.5 MDA SCHEMATIC DIAGRAM 4-11
4.6 AUDIO SCHEMATIC DIAGRAM 4-13
4.7 DV MAIN SCHEMATIC DIAGRAM 4-15
4.8 PRE/REC SCHEMATIC DIAGRAM 4-17
4.9 V OUT SCHEMATIC DIAGRAM 4-19
4.10 CAM DSP SCHEMATIC DIAGRAM 4-21
4.11 OP DRIVE SCHEMATIC DIAGRAM 4-23
4.12 TG/VDRV SCHEMATIC DIAGRAM 4-25
4.13 REG SCHEMATIC DIAGRAM 4-27
4.14 MONITOR SCHEMATIC DIAGRAM 4-29
4.15 LCD BL SCHEMATIC DIAGRAM 4-31
4.16 CCD SCHEMATIC DIAGRAM 4-33
4.17 JUNCTION SCHEMATIC DIAGRAM 4-34
4.18 JACK SCHEMATIC DIAGRAM 4-35
4.19 B/W VF SCHEMATIC DIAGRAM 4-36
4.20 ZOOM UNIT SCHEMATIC DIAGRAM 4-37
4.21 MAIN CIRCUIT BOARD 4-39
4.22 MONITOR CIRCUIT BOARD 4-45
4.23 LCD BL CIRCUIT BOARD 4-47
4.24 CCD AND JUNCTION CIRCUIT BOARDS 4-49
4.25 JACK CIRCUIT BOARD 4-51
4.26 VOLTAGE CHARTS 4-53
4.27 POWER SYSTEM BLOCK DIAGRAM 4-57
4.28 REGULATOR SYSTEM BLOCK DIAGRAM 4-59
4.29 VIDEO SYSTEM BLOCK DIAGRAM 4-61
4.30 AUDIO SYSTEM BLOCK DIAGRAM 4-65

5. PARTS LIST

5.1 PACKING AND ACCESSORY ASSEMBLY <M1> 5-1
5.2 FINAL ASSEMBLY <M2> 5-3
5.3 MECHANISM ASSEMBLY <M3> 5-6
5.4 ELECTRONIC VIEWFINDER ASSEMBLY <M4> [GR-DVL450EG] . 5-8
5.4 ELECTRONIC VIEWFINDER ASSEMBLY <M4> [GR-DVL150EG/EK] . 5-9
5.5 MONITOR ASSEMBLY <M5> [GR-DVL150EG/EK] 5-10
5.5 MONITOR ASSEMBLY <M5> [GR-DVL450EG] 5-11
5.6 ELECTRICAL PARTS LIST 5-12
MONITOR BOARD ASSEMBLY <02> 5-20
LCD BL BOARD ASSEMBLY <03> 5-21
CCD BOARD ASSEMBLY <04> 5-21
JUNCTION BOARD ASSEMBLY <05> 5-21
JACK BOARD ASSEMBLY <06> 5-21

The following table lists the differing points between Models GR-DVL150EG/EK and GR-DVL450EG in this series.

	GR-DVL150EG	GR-DVL150EK	GR-DVL450EG
VIEW FINDER	B/W	B/W	COLOR
LCD MONITOR	2.5”	2.5”	3.5”
CD ROM	OPTIONAL	OPTIONAL	PROVIDE
AC ADAPTER	AP-V10EG	AP-V10EK	AP-V10EG
PC CONNECTION CABLE	OPTIONAL	OPTIONAL	PROVIDE

Important Safety Precautions

Prior to shipment from the factory, JVC products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

● Precautions during Servicing

1. Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product. When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

2. Parts identified by the ⚠ symbol and shaded ( ) parts are critical for safety.
   Replace only with specified part numbers.
   Note: Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

3. Fuse replacement caution notice.
   Caution for continued protection against fire hazard.
   Replace only with same type and rated fuse(s) as specified.

4. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads

5. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape 3) Spacers 5) Barrier
   2) PVC tubing 4) Insulation sheets for transistors

6. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.

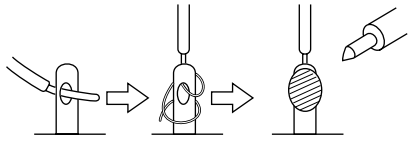


Fig.1

7. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.)

8. Check that replaced wires do not contact sharp edged or pointed parts.

9. When a power cord has been replaced, check that 10-15 kg of force in any direction will not loosen it.

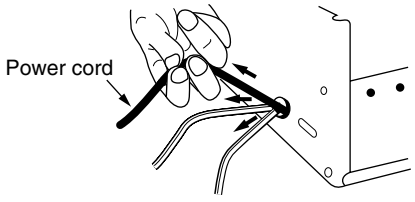


Fig.2

10. Also check areas surrounding repaired locations.

11. Products using cathode ray tubes (CRTs)
    In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission.
    Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the specified parts. Under no circumstances attempt to modify these circuits.
    Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

12. Crimp type wire connector
    In such cases as when replacing the power transformer in sets where the connections between the power cord and power transformer primary lead wires are performed using crimp type connectors, if replacing the connectors is unavoidable, in order to prevent safety hazards, perform carefully and precisely according to the following steps.

    1) Connector part number : E03830-001
    2) Required tool : Connector crimping tool of the proper type which will not damage insulated parts.
    3) Replacement procedure
    (1) Remove the old connector by cutting the wires at a point close to the connector.
    Important : Do not reuse a connector (discard it).

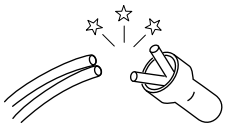


Fig.3

(2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

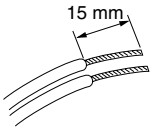


Fig.4

(3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

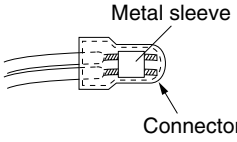


Fig.5

(4) As shown in Fig.6, use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

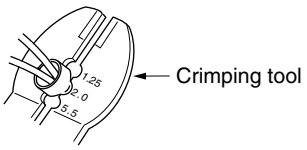


Fig.6

(5) Check the four points noted in Fig.7.

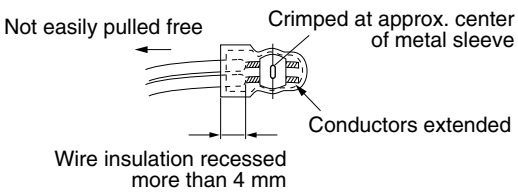

Not easily pulled free
Crimped at approx. center of metal sleeve
Conductors extended
Wire insulation recessed more than 4 mm

Fig.7

● Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions, Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

1. Insulation resistance test

Confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

2. Dielectric strength test

Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

3. Clearance distance

When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See table 1 below.

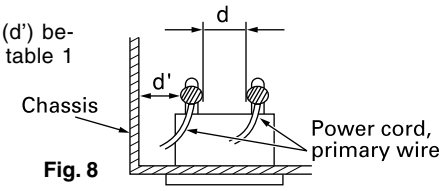


Fig. 8

4. Leakage current test

Confirm specified or lower leakage current between earth ground/power cord plug prongs and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).

Measuring Method : (Power ON)

Insert load Z between earth ground/power cord plug prongs and externally exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See figure 9 and following table 2.

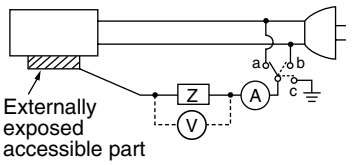


Fig. 9

5. Grounding (Class 1 model only)

Confirm specified or lower grounding impedance between earth pin in AC inlet and externally exposed accessible parts (Video in, Video out, Audio in, Audio out or Fixing screw etc.).

Measuring Method:

Connect milli ohm meter between earth pin in AC inlet and exposed accessible parts. See figure 10 and grounding specifications.

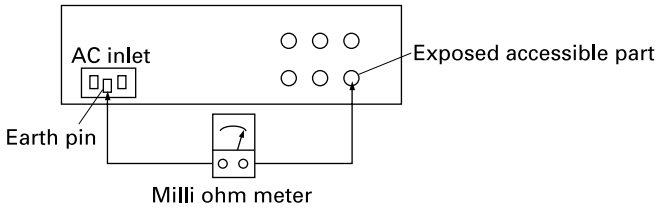


Fig. 10

Grounding Specifications

Region	Grounding Impedance (Z)
USA & Canada	Z ≦ 0.1 ohm
Europe & Australia	Z ≦ 0.5 ohm

AC Line Voltage	Region	Insulation Resistance (R)	Dielectric Strength	Clearance Distance (d), (d')
100 V	Japan	R ≧ 1 MΩ/500 V DC	AC 1 kV 1 minute	d, d' ≧ 3 mm
100 to 240 V			AC 1.5 kV 1 miute	d, d' ≧ 4 mm
110 to 130 V	USA & Canada	1 MΩ ≦ R ≦ 12 MΩ/500 V DC	AC 1 kV 1 minute	d, d' ≧ 3.2 mm
110 to 130 V 200 to 240 V	Europe & Australia	R ≧ 10 MΩ/500 V DC	AC 3 kV 1 minute (Class Ⅱ) AC 1.5 kV 1 minute (Class Ⅰ)	d ≧ 4 mm d' ≧ 8 mm (Power cord) d' ≧ 6 mm (Primary wire)

Table 1 Specifications for each region

AC Line Voltage	Region	Load Z	Leakage Current (i)	a, b, c
100 V	Japan	1 kΩ	i ≦ 1 mA rms	Exposed accessible parts
110 to 130 V	USA & Canada	0.15 μF, 1.5 kΩ	i ≦ 0.5 mA rms	Exposed accessible parts
110 to 130 V 220 to 240 V	Europe & Australia	2 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Antenna earth terminals
		50 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Other terminals

Table 2 Leakage current specifications for each region

Note: These tables are unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

SECTION 1
DISASSEMBLY

1.1 BEFORE ASSEMBLY AND DISASSEMBLY

1.1.1 Precautions

1. Be sure to remove the power supply unit prior to mounting and soldering of parts.
2. When removing a component part that needs to disconnect the connector and to remove the screw for removing itself, first disconnect the connecting wire from the connector and then remove the screw beforehand.
3. When connecting and disconnecting the connectors, be careful not to damage the wire.
4. Carefully remove and handle the part to which some spacer or shield is attached for reinforcement or insulation.
5. When replacing chip parts (especially IC parts), desolder completely first (to prevent peeling of the pattern).
6. Tighten screws properly during the procedures.
   Unless specified otherwise, tighten screws at a torque of 0.069N•m(0.7kgf•cm).

1.1.2 Assembly and disassembly

STEP No.	PART	Fig.No.	POINT	NOTE
①	COVER(ZOOM) ASSY	Fig.1-3-1	(S①a),(S①b),2(L①a),2(L①b)	-
②	UPPER CASE ASSY (Inc.E.VF UNIT (B/W,COLOR), SPEAKER/ MONITOR)	Fig.1-3-2	(S②a),(S②b),(L②),(S②c) 2(S②a),(S②d),4(S②a) CAP(DC JACK) ☆CN2a	NOTE②

(1) (2) (3) (4) (5)

(1) Indicate the disassembly steps. When assembling, perform in the reverse order of these steps. This number corresponds to the number in the disassembly diagram.
(2) Indicates the name of disassembly/assembly parts.
(3) Indicates the number in the disassembly diagram.
(4) Indicates parts and points such as screws, washers, springs which must be removed during disassembly/assembly.

Symbol	Name, Point
S	Screw
L	Lock, Pawl, Hook
SD	Soldering
☆(Others)	Connector, Cover, Bracket, etc.

(Example)
- 2 (S1) : Remove the two screws (S1) for removing the part 1.
- CN2a: Disconnect the connector 2a.
- SD1 : Unsolder at the point SD1.

(5) Precautions on disassembly/assembly.

1.1.3 Destination of connectors

Note: *Three kinds of double-arrows in connection tables respectively show kinds of connector/wires.*
↔ : Wire
⇔ : Flat wire
⬌ : Board to Board connector

[Example]

Note: *Remove the parts marked in .*

CONN. No.	CONNECTOR					Pin No.
2a	MAIN	CN101	⇔	MONITOR	CN761	40

1.1.4 Disconnection of Connectors (Wires)

Connector
Pull both ends of the connector in the arrow direction, remove the lock and disconnect the flat wire.

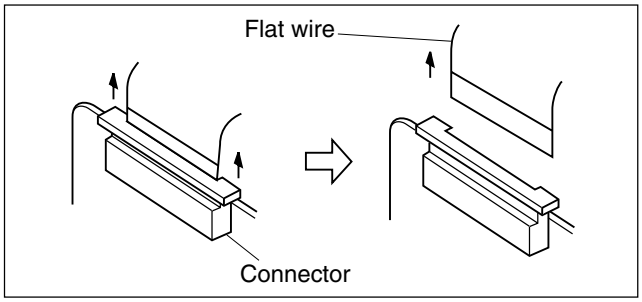


Fig. 1-1-1 Connector 1

Extend the locks in the direction of the arrow for unlocking and then pull out the wire. After removing the wire, immediately restore the locks to their original positions because the locks are apt to come off the connector.

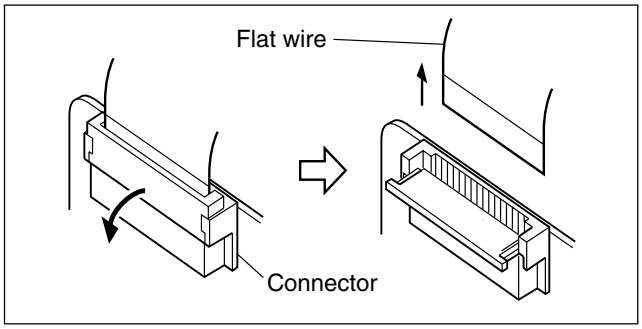


Fig. 1-1-2 Connector 2

B-B connector
Pull the board by both the sides in the direction of the arrow for disconnecting the B-B connector.

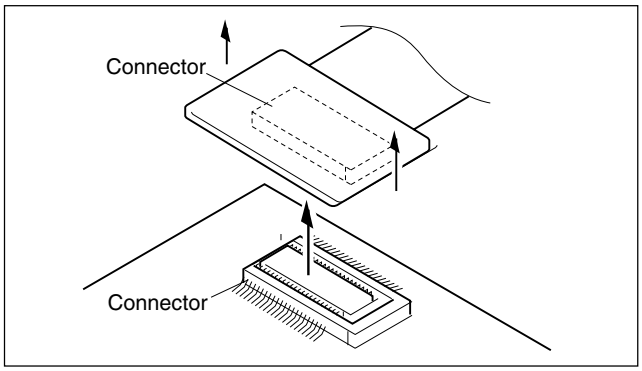


Fig. 1-1-3 Connector 3

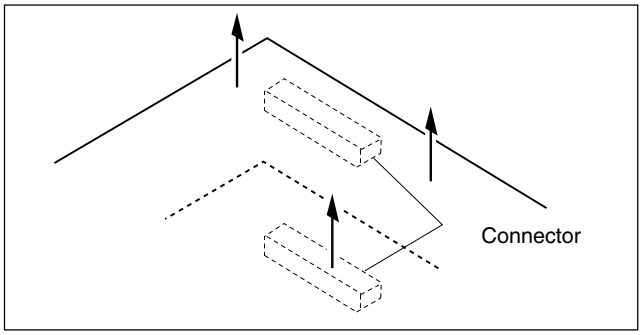


Fig. 1-1-4 Connector 4

1.2 JIGS AND TOOLS REQUIRED FOR DISASSEMBLY, ASSEMBLY AND ADJUSTMENT

1.2.1 Tools required for adjustments

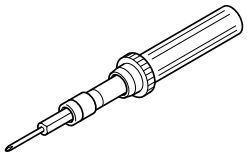
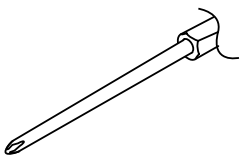
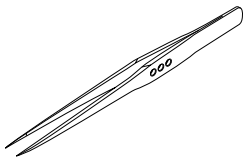
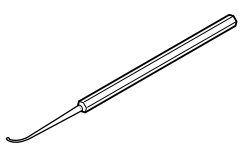
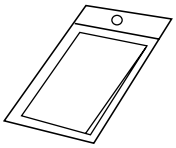
1 Torque Driver YTU94088	2 Bit YTU94088-003
	
3 Tweezers P-895	4 Chip IC Replacement Jig PTS40844-2
	
5 Cleaning Cloth KSMM-01	
	

Table 1-2-1

1. **Torque driver**
   Be sure to use to fastening the mechanism and exterior parts because those parts must strictly be controlled for tightening torque.
2. **Bit**
   This bit is slightly longer than those set in conventional torque drivers.
3. **Tweezers**
   To be used for removing and installing parts and wires.
4. **Chip IC replacement jig**
   To be used for adjustment of the camera system.
5. **Cleaning cloth**
   Recommended cleaning cloth to wipe down the video heads, mechanism (tape transport system), optical lens surface.

1.3 DISASSEMBLY/ASSEMBLY OF CABINET PARTS AND BOARD ASSEMBLY

1.3.1 Disassembly flow chart

This flowchart indicates the disassembly step for the cabinet parts and board assembly in order to gain access to item(s) to be serviced. When reassembling, perform the step(s) in reverse order.

①	COVER(ZOOM) ASSY
②	UPPER CASE ASSY (Inc.E.VF UNIT(B/W,COLOR),SPEAKER/MONITOR)
③	FRONT COVER ASSY (Inc.DC LIGHT,MIC)
④	OP BLOCK ASSY /BRACKET(OP) ASSY
⑤	REAR UNIT
⑥ / ⑦	LOWER CASE ASSY (Inc.ZOOM UNIT) /JACK BOARD ASSY
⑧	JUNCTION BOARD ASSY
⑨ / ⑩	MAIN BOARD ASSY /MECHANISM ASSY
⑪ / ⑫	E.VF UNIT /SPEAKER
⑬ / ⑭	MONITOR ASSY /MONITOR BOARD ASSY

Table 1-3-1

1.3.2 Disassembly method

STEP No.	PART	Fig.No.	POINT	NOTE
①	COVER(ZOOM) ASSY	Fig.1-3-1	(S①a),(S①b),2(L①a),2(L①b)	-
②	UPPER CASE ASSY (Inc.E.VF UNIT (B/W,COLOR), SPEAKER/ MONITOR)	Fig.1-3-2	(S②a),(S②b),(L②),(S②c) 2(S②a),(S②d),4(S②a) CAP(DC JACK) ☆CN2a	NOTE②
③	FRONT COVER ASSY (Inc.DC LIGHT,MIC)	Fig.1-3-3	COVER(JACK),3(S③),(L③a) (L③b),☆CN3a	NOTE③a NOTE③b
④	OP BLOCK ASSY /BRACKET(OP) ASSY	Fig.1-3-4	☆CN4a,4b 2(S④),2(L④)	-
⑤	REAR UNIT	Fig.1-3-5	☆CN5a 4(S⑤)	NOTE⑤
⑥ / ⑦	LOWER CASE ASSY (Inc.ZOOMUNIT)	Fig.1-3-6	☆CN6a,6b,6c (S⑥a),2(S⑥b),2(S⑥c) (L⑥a),(L⑥b)	-
	JACK BOARD ASSY		(S⑦)	NOTE⑦
⑧	JUNCTION BOARD ASSY	Fig.1-3-7	☆CN8a,8b,8c 2(S⑧),☆CN8d	NOTE⑧a NOTE⑧b
⑨ / ⑩	MAIN BOARD ASSY /MECHANISM ASSY	Fig.1-3-8	(S⑨a),(L⑨a),SHIELD PLATE ☆CN9a,9b,9c 2(S⑨b),(L⑨b),(L⑨c)	-
⑪ / ⑫	E.VF UNIT	Fig.1-3-9	☆CN 11a,(S⑪a),(S⑪b) (L⑪)	NOTE⑪a NOTE⑪b
	SPEAKER		(S⑫),PLATE(SPK) ☆CN 12a	-
⑬ / ⑭	MONITOR ASSY	Fig.1-3-10	2(S⑬a),COVER(HINGE) ☆CN 13a, 2(S⑬b)	NOTE⑬
	MONITOR BOARD ASSY		3(S⑭),(L⑭)	NOTE⑭a NOTE⑭b

Table 1-3-2

Note: *Remove the parts marked in* .

CONN. No.	CONNECTOR					Pin No.
2a	MAIN	CN101	⇔	MONITOR	CN761	40
3a	MAIN	CN106	↔	MIC	—	3
4a	MAIN	CN107	⇔	CCD	—	20
4b	MAIN	CN108	⇔	OP BLOCK ASSY	—	24
5a	MAIN	CN104	↔	REAR UNIT	CN1	10
6a	MAIN	CN109	⇔	ZOOM UNIT	—	15
6b	MAIN	CN102	↔	JACK	CN501	9
6c	JACK	CN502	⇔	MAIN	CN103	14
8a	JUNCTION	CN571	⇔	MAIN	CN113	34
8b	JUNCTION	CN574	⇔	LOADING MOTOR	—	6
8c	JUNCTION	CN573	⇔	DRUM MOTOR	—	11
8d	JUNCTION	CN572	⇔	SENSOR	—	15
9a	MAIN	CN110	⇔	HEAD	—	8
9b	MAIN	CN112	⇔	CAPSTAN MOTOR	—	18
9c	MAIN	CN111	⇔	ROTARY ENCODER	—	6
11a	MONITOR	CN763	⇔	E.VF UNIT (C_B/W)	CN721/CN751	20
12a	MONITOR	CN765	↔	SPEAKER	—	2
13a	MONITOR	CN764	⇔	LCD BL	CN751	33/32

Table 1-3-3

NOTE ②: *Remove the CAP (DC JACK) before removing these parts .*

NOTE ③a: *As it is difficult to remove (L③b), remove the F. COVER ASSY by lowering it.*

NOTE ③b: *Be careful not to damage any parts.*
Particularly, take care not to scratch or stain the lenses.

NOTE ⑤: *As screw No. 19 is hidden behind the cassette cover, open the cassette cover to enable removal of the screw.*

NOTE ⑦: *As screw No. 27 is hidden behind the cassette cover, open it before removing the screw.*

NOTE ⑧a: *As the CN572 is located at the back of the assembly, unplug the three connectors and remove the screws before disconnecting the CN572.*

NOTE ⑧b: *Be careful not to damage any of the switches.*

NOTE ⑪a: *To remove the unit, unlock the connector and pull out the unit together with the FPC.*

NOTE ⑪b: *When removing the unit, insert the FPC into the gap.*

NOTE ⑬: *When reassembling the MONITOR ASSY, be careful not to damage any of the parts.*

NOTE ⑭a: *Be careful not to damage any of the parts.*

NOTE ⑭b: *Be careful not to damage any of the parts.*
SW KNOB(DC LIGHT: Gray)

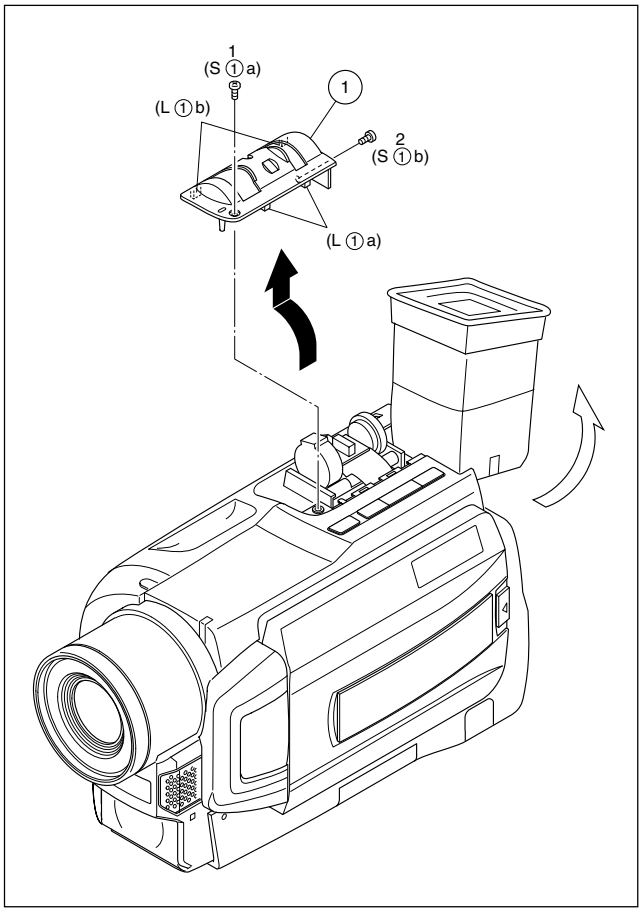


Fig. 1-3-1

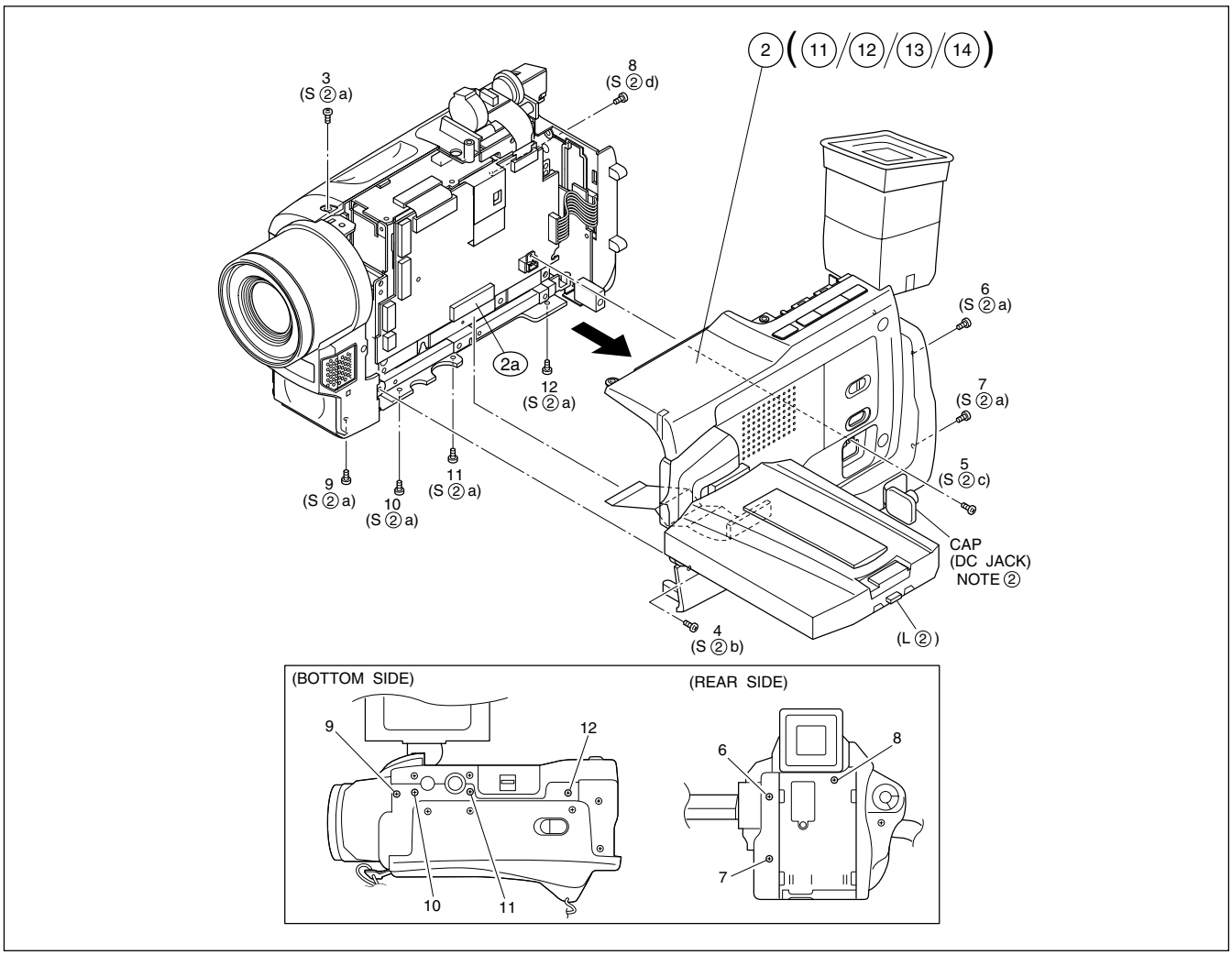


Fig. 1-3-2

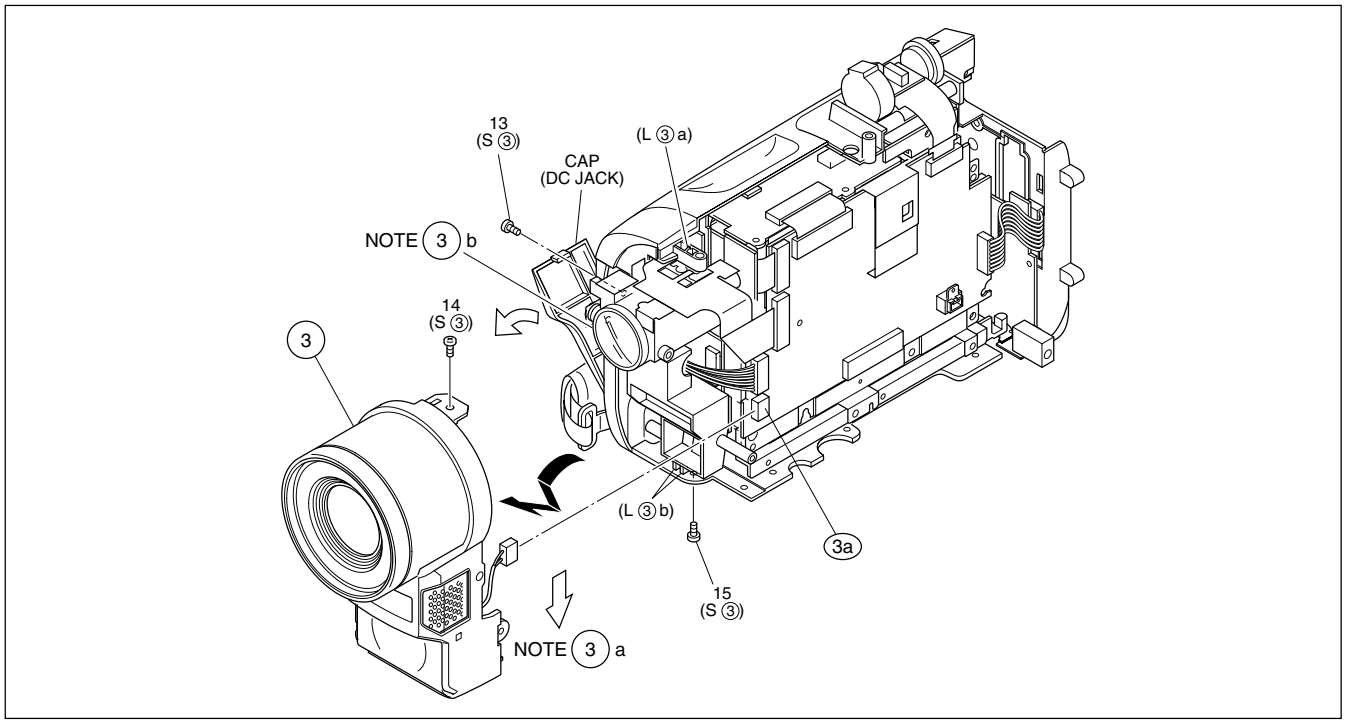


Fig. 1-3-3

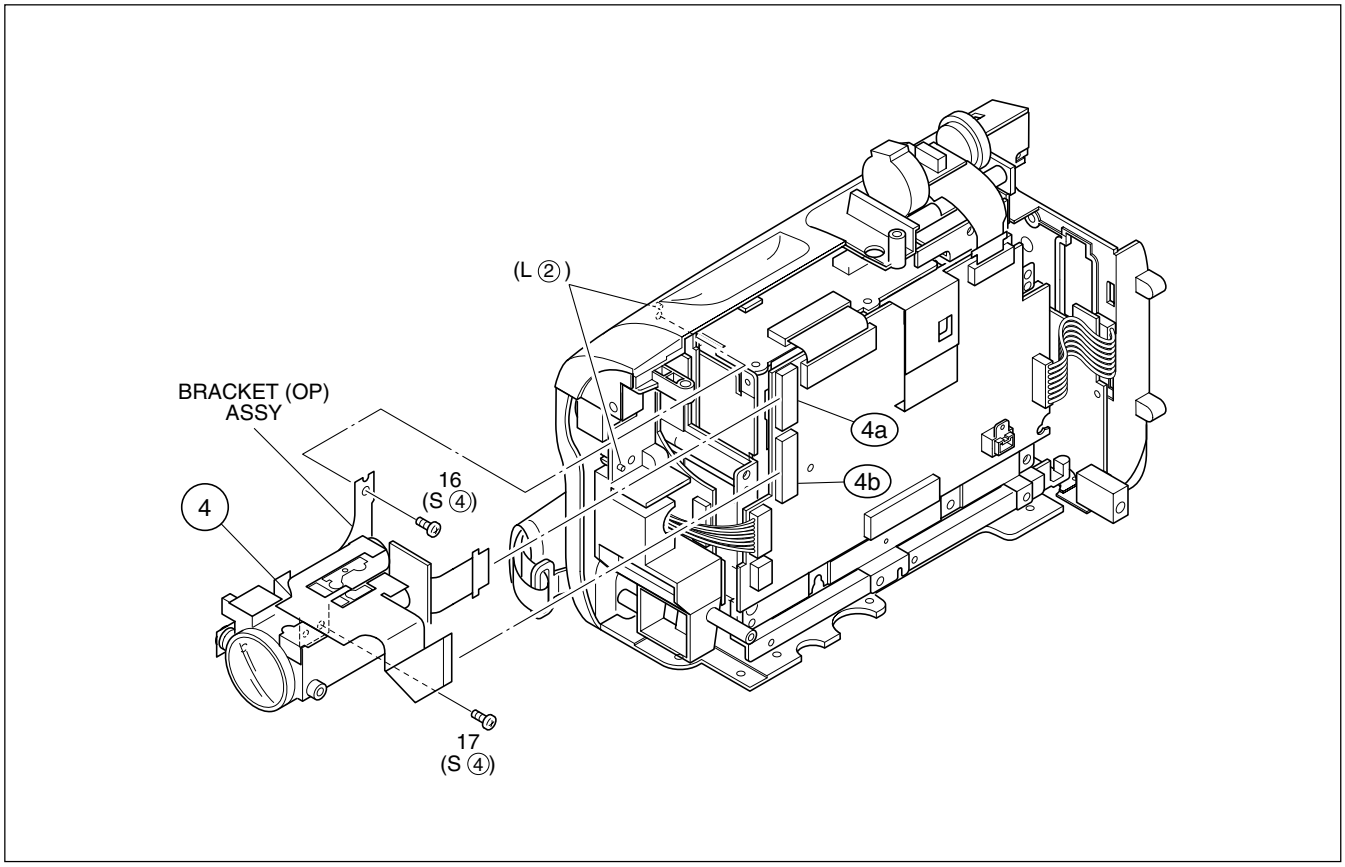


Fig. 1-3-4

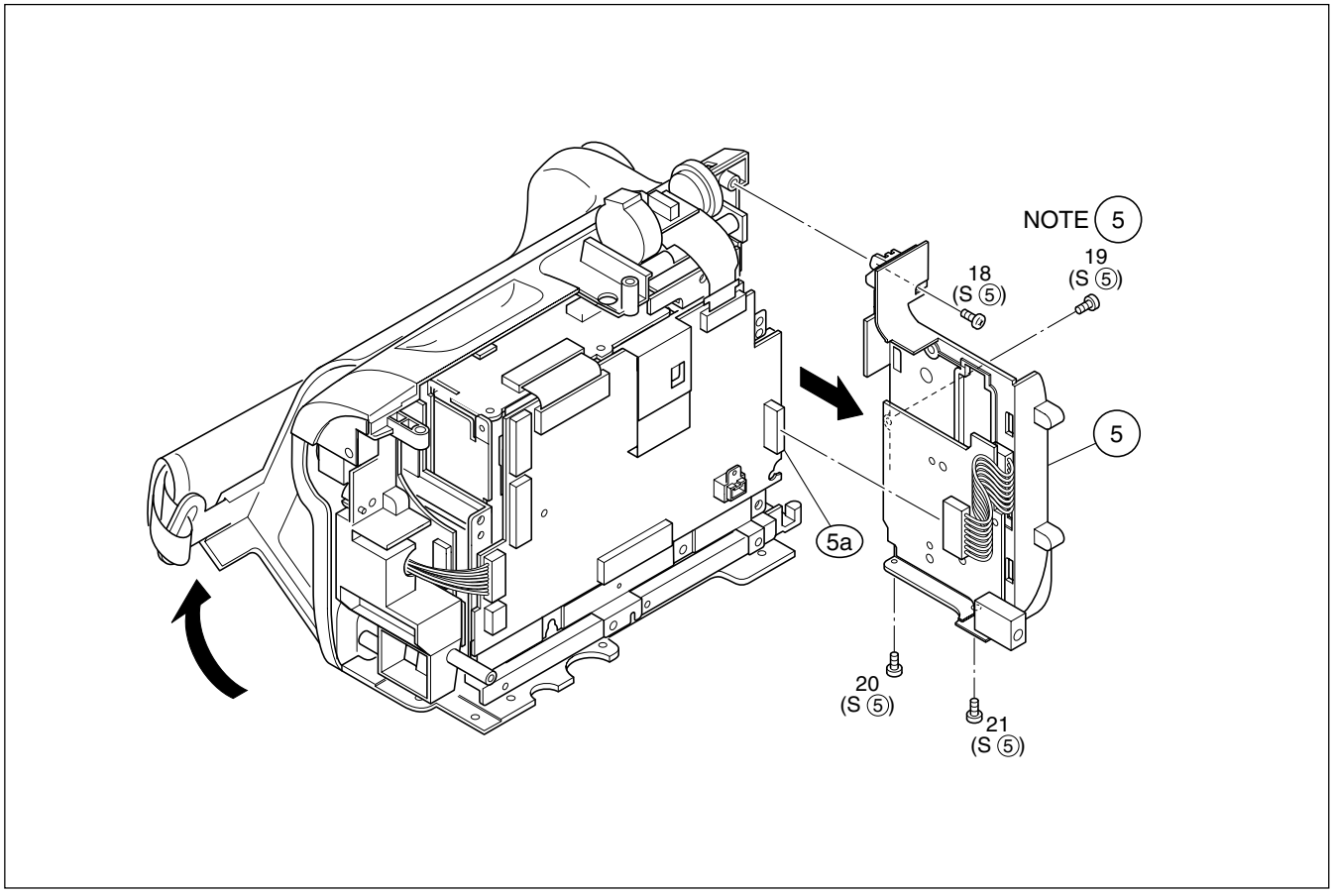


Fig. 1-3-5

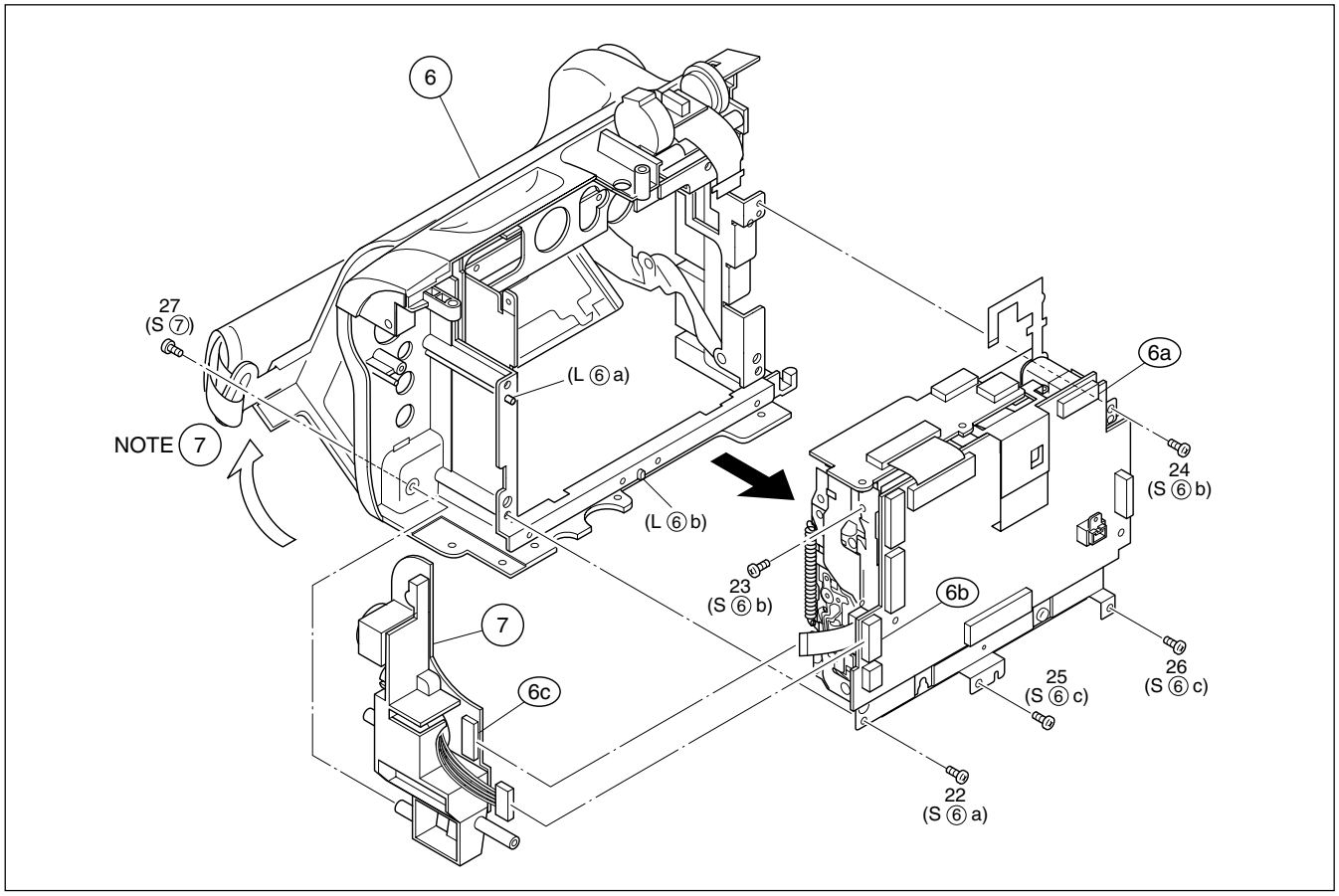


Fig. 1-3-6

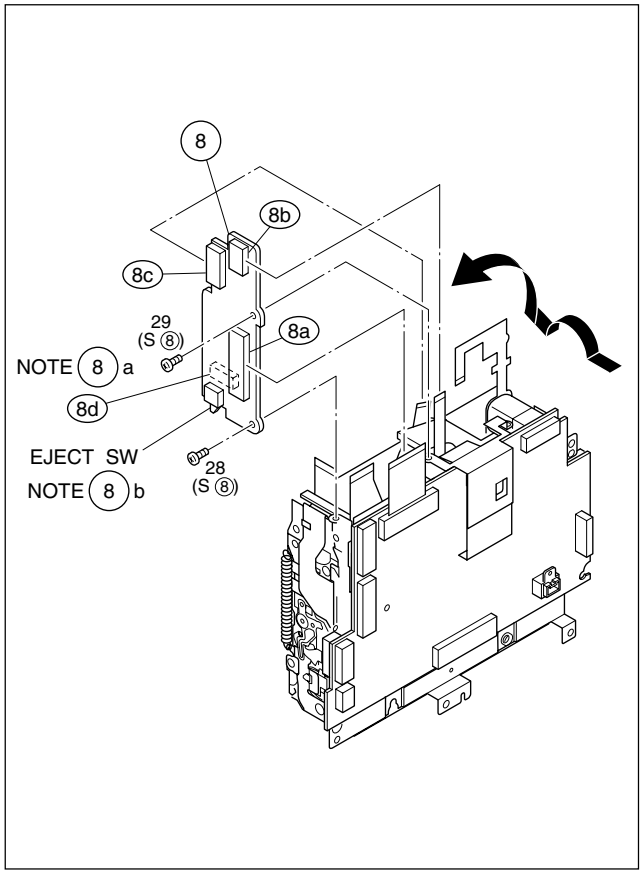


Fig. 1-3-7

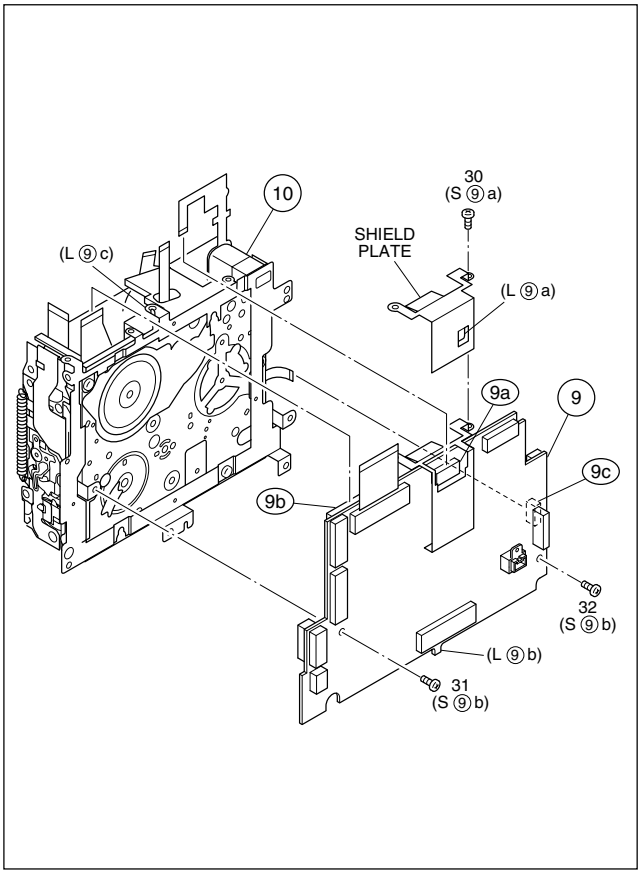


Fig. 1-3-8

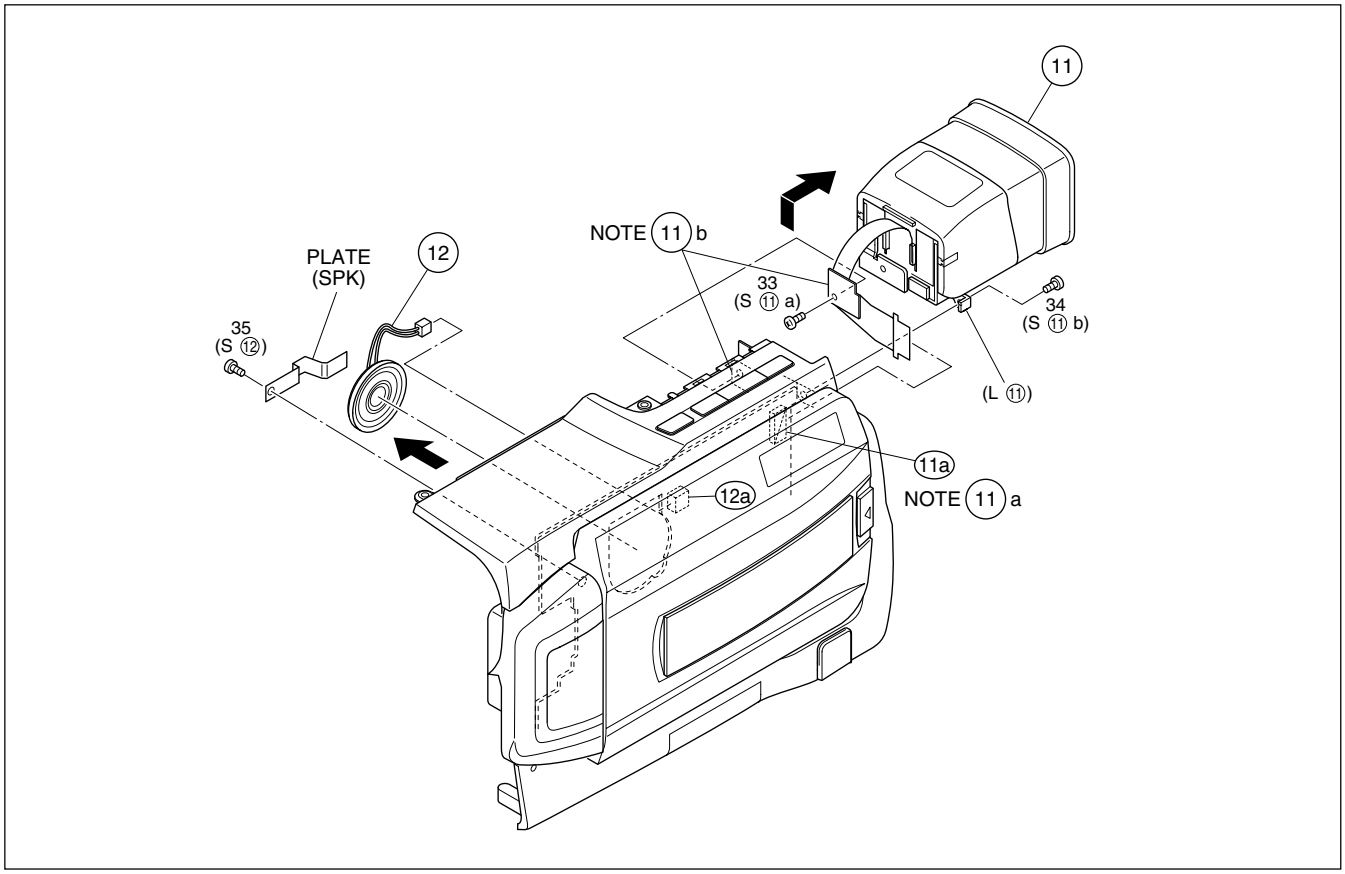


Fig. 1-3-9

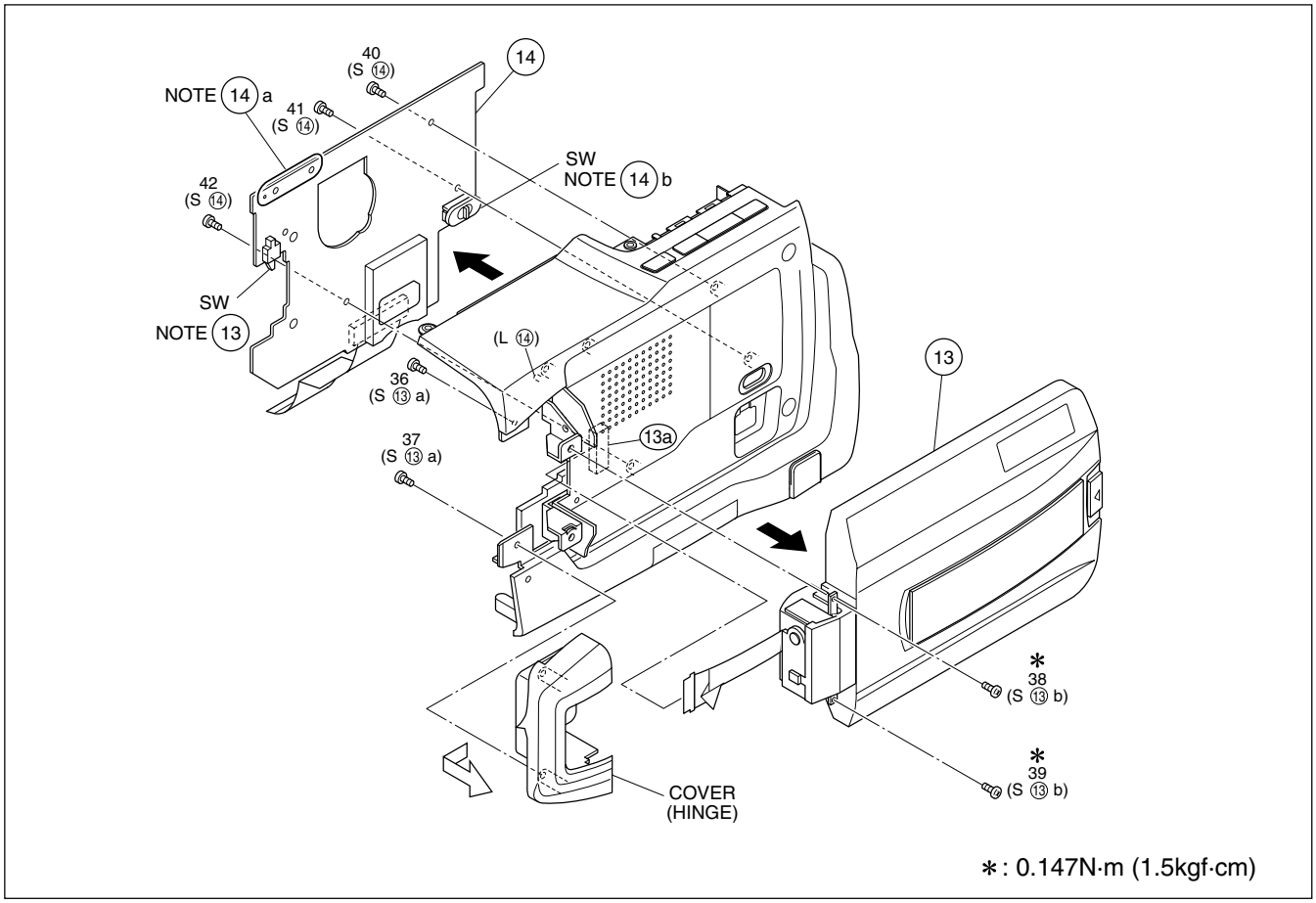


Fig. 1-3-10

1.4 ⑬ MONITOR ASSEMBLY

Note: *The shape of the monitor assembly varies by the size of the LCD screen.*

For the 2.5"-type LCD, refer to Fig. 1-4-1.

1.4.1 Disassembly/assembly of monitor assembly (for 2.5"-type LCD)

Note: *Be careful not to soil or scratch the monitor screen through the disassembly/assembly work.*

1. Remove the four screws 1 to 4 in numerical order. While disengaging the six hooks (L⑬a to L⑬f) in alphabetical order, remove the monitor cover assembly.
2. Unlock the connector a and then disconnect the FPC while lifting the hinge assembly upwards to remove it together with the FPC.

Note⑬a: *For disconnecting the FPC, unlock the connector first and then lift the hinge assembly upwards. Accordingly, the FPC is disconnected together with the hinge assembly.*

Note⑬b: *Treat the wires carefully.*

3. Unplug the wires and FPCs from the two connectors ⓑ, ⓒ, and then remove the MONITOR BL board assembly, holder (PWB) and backlight in that order.
4. Remove the LCD module.

1.4.2 Disassembly/assembly of hinge assembly (for 2.5"-type LCD)

1. Remove the three screws (5 to 7), and then remove the hinge covers (1) and (2) by disengaging a total of four hooks (L⑬g, L⑬h) at the two sides.
2. Separate the SW board assembly and the FPC from the hinge assembly.

Note⑬c: *When connecting the FPC, arrange the FPC wire by winding it around the shaft (hinge pin) of the hinge assembly by two and a half turns while paying heed to the orientation of the hinge assembly and FPC.*

Note⑬d: *When disassembling/assembling the hinge assembly, pay careful attention to every part not to damage anything.*

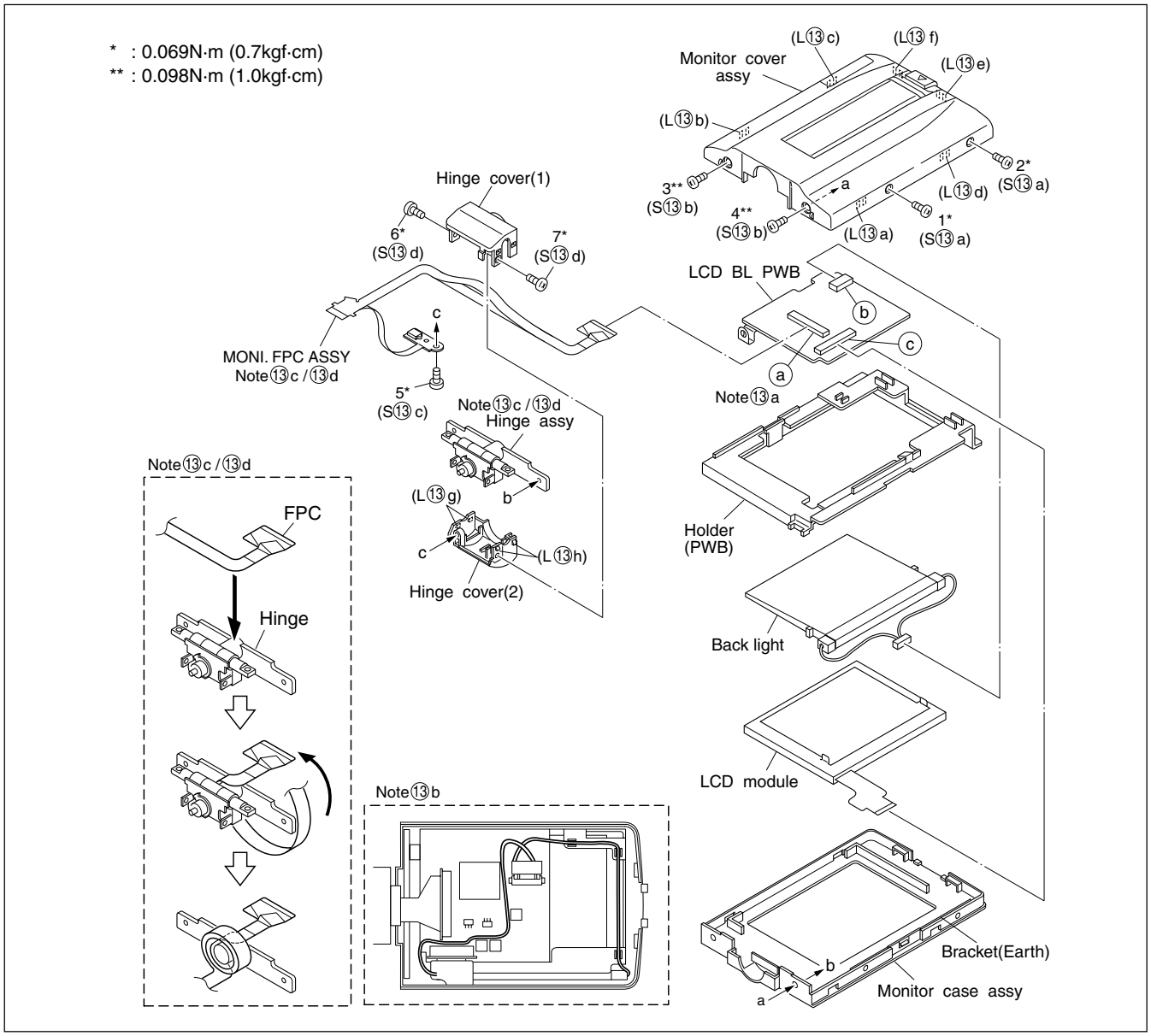


Fig. 1-4-1

Note: *The shape of the monitor assembly varies depending on the size of the LCD screen.*

For the 3.5"-type LCD, refer to Fig. 1-4-2.

1.4.3 Disassembly/assembly of monitor assembly (for 3.5"-type LCD)

Note: *Be careful not to soil or scratch the monitor screen through the disassembly/assembly work.*

1. Remove the four screws 1 to 4 in numerical order. While disengaging the six hooks (L⑬a to L⑬f) in alphabetical order, open the monitor cover assembly and remove it after disconnecting the FPC from the connector a..

Note⑬e: *When removing the monitor cover assembly, be careful not to damage the FPC and connector.*

2. Unlock the connector b and then disconnect the FPC while lifting the hinge assembly upwards to remove it together with the FPC.

Note⑬f: *For disconnecting the FPC, unlock the connector first and then lift the hinge assembly upwards. Accordingly, the FPC is disconnected together with the hinge assembly.*

Note⑬g: *Treat the wires carefully.*

3. Unplug the wires and FPCs from the two connectors ⓑ, ⓒ, and then remove the MONITOR BL board assembly, holder (PWB) and backlight in that order.
4. Remove the LCD module.

1.4.4 Disassembly/assembly of hinge assembly (for 3.5"-type LCD)

1. Remove the three screws (5 to 7), and then remove the hinge covers (1) and (2) by disengaging a total of four hooks (L⑬g, L⑬h) at the two sides.
2. Separate the SW board assembly and the FPC from the hinge assembly.

Note⑬h: *When disassembling/assembling the hinge assembly, pay careful attention to every part not to damage anything.*

Note⑬j: *When connecting the FPC, arrange the FPC wire by winding it around the shaft (hinge pin) of the hinge assembly by two and a half turns while paying heed to the orientation of the hinge assembly and FPC.*

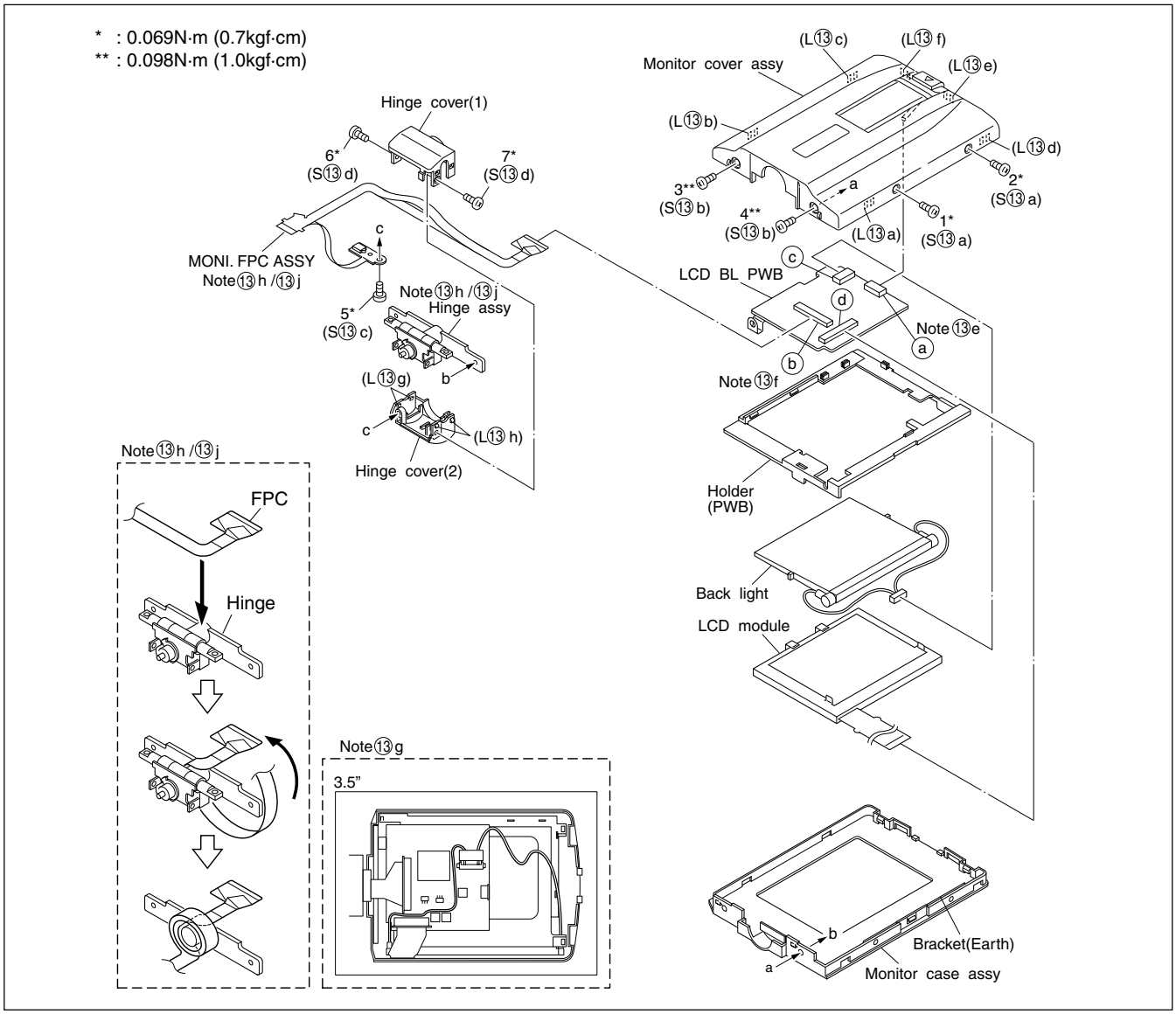


Fig. 1-4-2

1.5 ⑪ E. VF ASSEMBLY

Note: *The shape of the E. VF assembly varies by the type of the viewfinder (B/W, COLOR VF).*

(For the B/W VF, refer to Fig. 1-5-1.
For the COLOR VF, refer to Fig. 1-5-2.)

1.5.1 Disassembly/assembly of E. VF assembly (for B/W VF)

1. Remove the two screws (1, 2) and the eyepiece assembly while disengaging the hook (L⑪a).
2. Remove the two screws (3, 4). And spread one side of the top case sub-assembly to disengage the hooks (L⑪b, L⑪c) that are located at both sides of the top case sub-assembly, then remove the top case sub-assembly.

Note⑪a: *When removing the top case sub-assembly, peel off or unplug the FPC that is bonded to the sub-assembly.*

Note⑪b: *When reassembling the top case sub-assembly, be careful not to catch the FPC between any of the parts.*

3. Remove the screw (5) and then remove the LCD assembly.

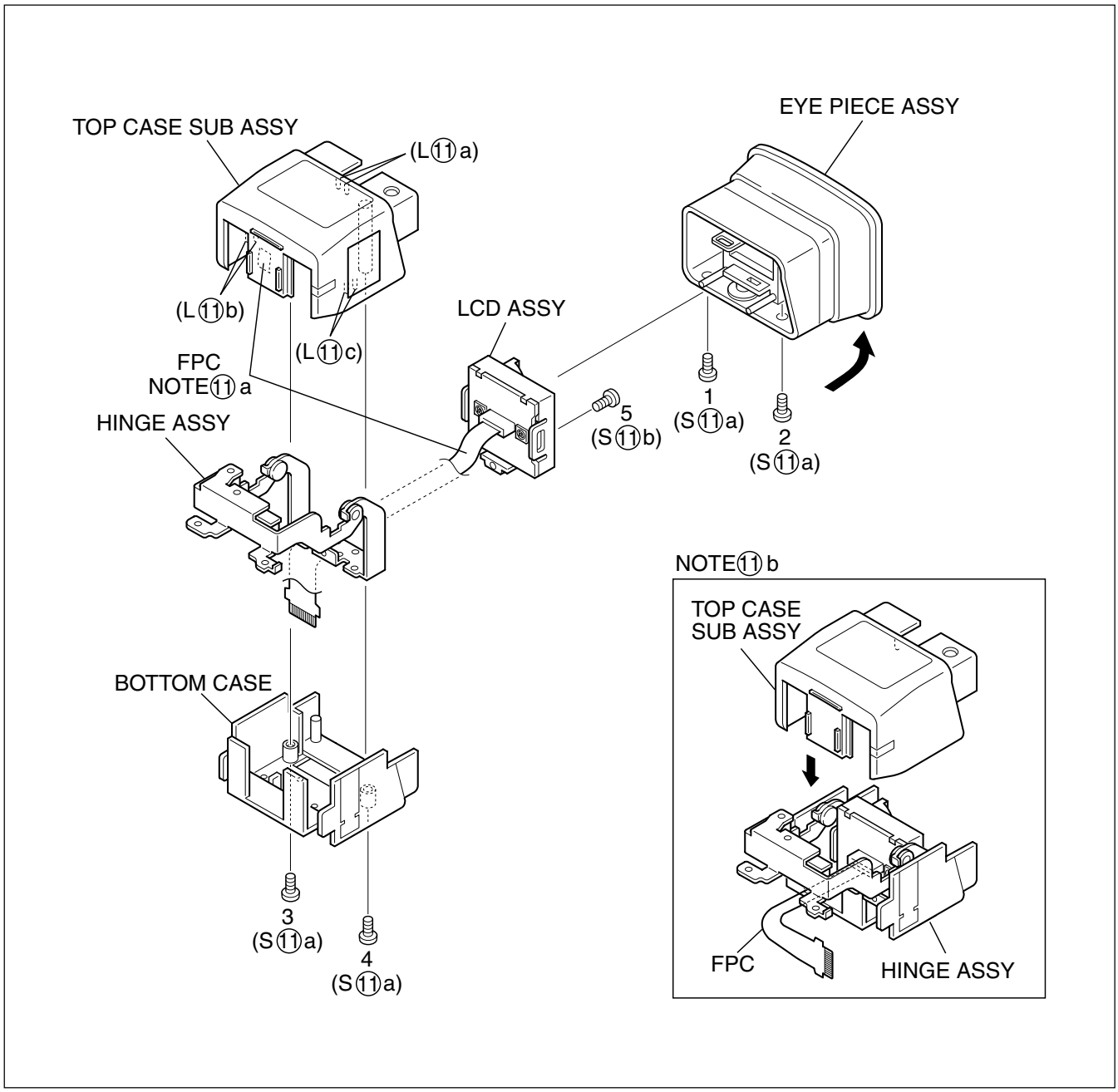


Fig. 1-5-1

1.5.2 Disassembly/assembly of E. VF assembly (for COLOR VF)

Note: *Place the E. VF assembly with the VF case (upper) assembly down through the disassembly/assembly work.*

1. Remove the two screws (1, 2) and the eyepiece assembly while disengaging the hook (L⑪a).
2. Remove the two screws (3, 4). And spread one side of the top case sub-assembly to disengage the hooks (L⑪b, L⑪c) that are located at both sides of the top case sub-assembly, then remove the top case sub-assembly.

Note⑪c: *When removing the top case sub-assembly, peel off or unplug the FPC that is bonded to the sub-assembly.*

Note⑪d: *When reassembling the top case sub-assembly, be careful not to catch the FPC between any of the parts.*

3. Remove the screw (5) and then remove the LCD assembly.

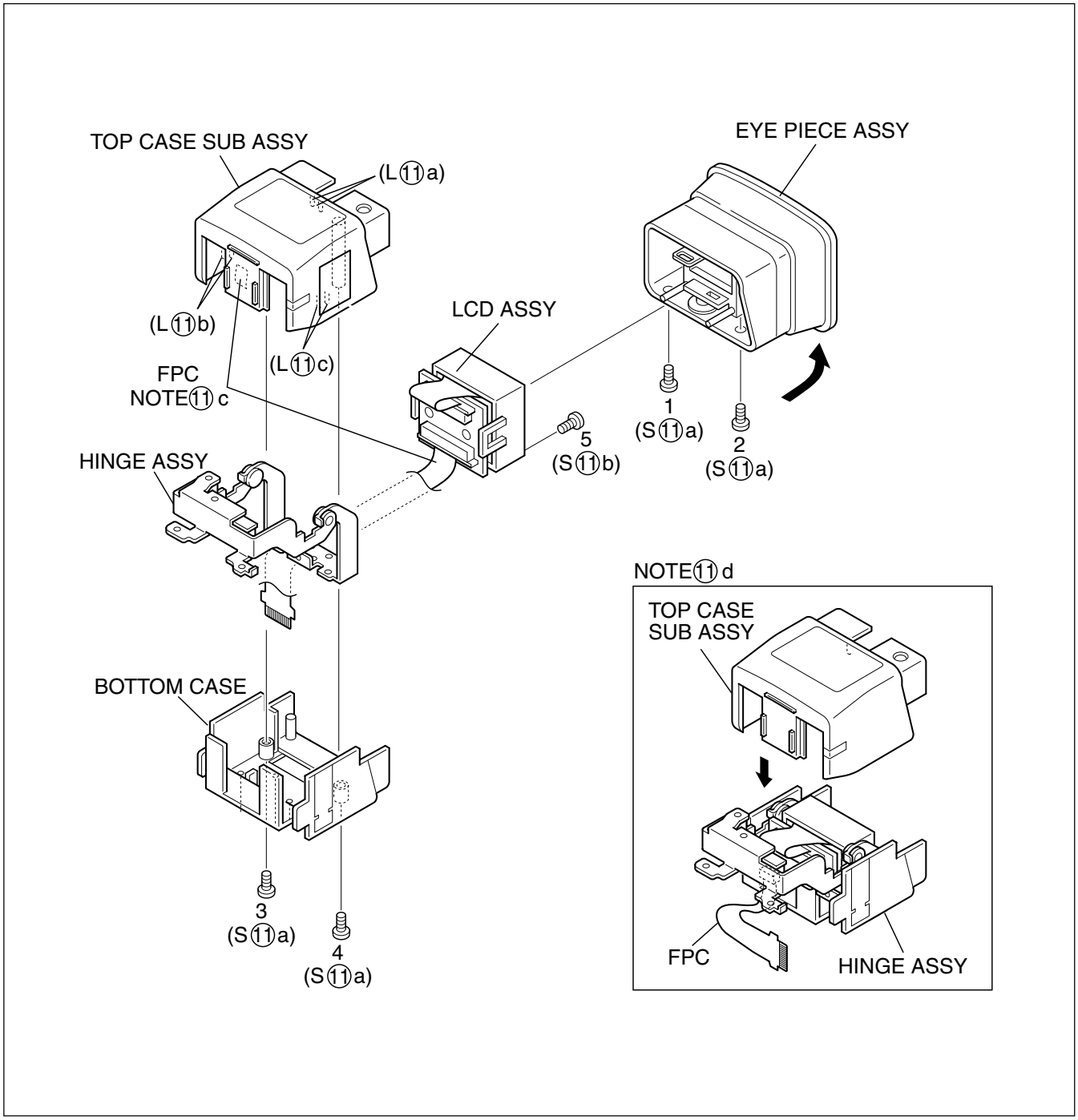


Fig. 1-5-2

1.6 DISASSEMBLY/ASSEMBLY OF OP BLOCK ASSEMBLY/CCD BOARD ASSEMBLY

1.6.1 Precautions

1. Take care in handling the CCD image sensor, optical LPF and lens components when performing maintenance etc., especially with regard to surface contamination, attached dust or scratching. If fingerprints are present on the surface they should be wiped away using either a silicon paper, clean chamois or the cleaning cloth.
2. The CCD image sensor may have been shipped with a protective sheet attached to the transmitting glass. When replacing the CCD image sensor, do not peel off this sheet from the new part until immediately before it is mounted in the OP Block Assembly.
3. The orientation of the optical LPF is an important factor for installation. If there is some marking on the LPF, be sure to note it down before removing and to reassemble it very carefully as it was referring to the marking.

1.6.2 How to remove CCD board assembly and CCD base assembly

1. Unsolder the CCD board assembly by the 14 points (SD1) and then remove it.
2. Remove the two screws (1, 2) and remove the CCD base assembly.

Note④a: *When removing the CCD base assembly, pay heed to the CCD image sensor because the spacer rubber and optical LPF are occasionally removed together with the CCD image sensor.*

Note ④b: *When replacing the CCD image sensor, don't replace it individually but replace the CCD base assembly in whole with a new one.*

1.6.3 How to assemble CCD base assembly and CCD board assembly

1. Install the optical LPF with the spacer rubber attached to its CCD side in the OP block assembly.

Note④c: *Pay careful attention to the orientation of the LPF.*

2. Set the CCD base assembly with careful attention to the spacer rubber not to come off the right position, and fasten them together with the two screws (1, 2).
3. Set the CCD board assembly in the CCD base assembly, and then solder it by the 14 points (SD1).

1.6.4 Replacement of Service Repair Parts

The service repair parts for the OP Block Assembly are as listed below.

Before replacement of these parts, remove the bracket (OP assembly) as required.

Take special care not to disconnect any of the FPC wires or cause any damage due to soldering (excessive heating).

1. Focus motor
2. Zoom motor
3. Iris motor unit

Note④d: *When replacing the focus motor or the zoom motor, solder the FPC at a space of about 1 mm above the terminal pin.*

Note④e: *The iris motor unit includes the FPC Assembly and two sensors.*

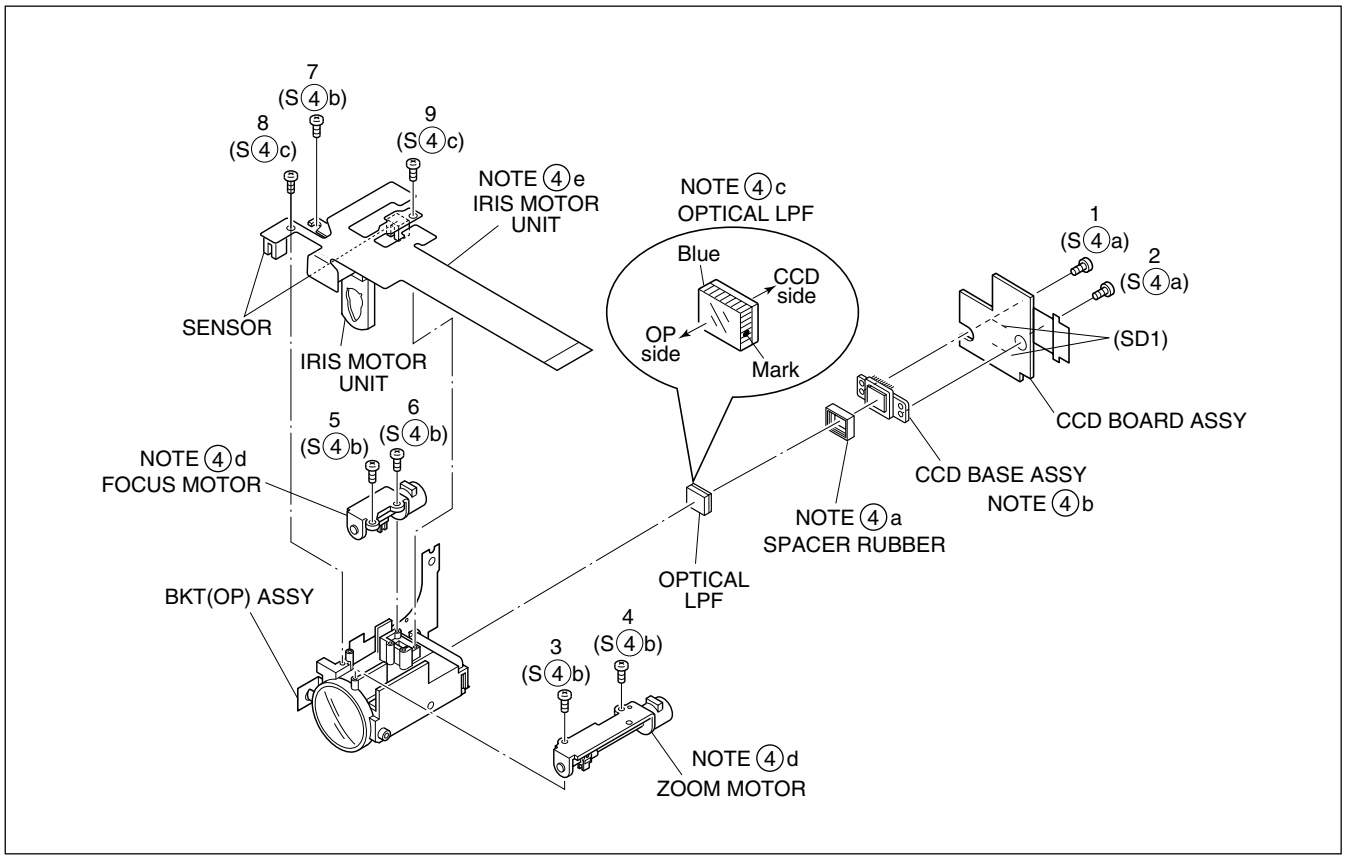


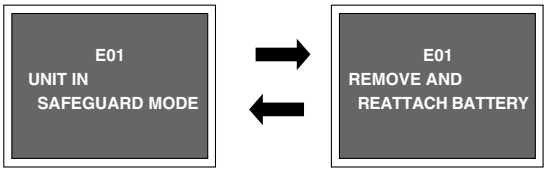
Fig. 1-6-1

1.7 EMERGENCY DISPLAY

Whenever some abnormal signal is input to the syscon CPU, an error number (E01, as an example) is displayed on the LCD monitor or (in the electronic view finder).
In every error status, such the message as shown below alternately appear over and over.

- In an emergency mode, all operations except turning on/off the POWER switch are ineffectual.

Example (in case of the error number E01):



LCD display	Emergency mode	Details	Possible cause
E01	LOADING	In the case the encoder position is not shifted to the next point though the loading motor has rotated in the loading direction for 4 seconds or more. This error is defined as [E01].	1. The mechanism is locked during mode shift. 2. The mechanism is locked at the mechanism loading end, because the encoder position is skipped during mechanism mode shift. 3. No power is supplied to the loading MDA.
E02	UNLOADING	In the case the encoder position is not shifted to the next point though the loading motor has rotated in the unloading direction for 4 seconds or more. This error is defined as [E02].	1. The mechanism is locked during mode shift. 2. The mechanism is locked at the mechanism loading end, because the encoder position is skipped during mechanism mode shift.
E03	TU & SUP REEL FG	In the case no REEL FG is produced for 4 seconds or more in the capstan rotation mode after loading was complete, the mechanism mode is shifted to STOP with the pinch roller set off. This error is defined as [E03]. However, no REEL EMG is detected in the SLOW/STILL mode.	1. The idler gear does not engage with the reel disk well. 2. Though the idler gear and reel disk are engaged with each other, the tape is not wound because of overload to the mechanism. 3. No FG pulse is output from the reel sensor. 4. No power is supplied to the reel sensor. 5. Tape transport operation takes place with a cassette having no tape inside. 6. The tape slackens and no pulse is produced until the slack is taken up and the tape comes into the normal status.
E04	DRUM FG	In the case there is no DRUM FG input in the drum rotation mode for 4 seconds or more. This error is defined as [E04], and the mechanism mode is shifted to STOP with the pinch roller set off.	1. The drum cannot be started or drum rotation is stopped because tape transport load is too high. 1) Tape tension is extremely high. 2) The tape is damaged or soiled with grease, etc. 2. The DRUM FG signal is not received by the syscon CPU. 1) Disconnection in the middle of the signal line. 2) Failure of the DRUM FG pulse generator (hall element). 3. No drum control voltage is supplied to the MDA. 4. No power is supplied to the DRUM MDA.
E05	–	–	–
E06	CAPSTAN FG	In the case no CAPSTAN FG is produced in the capstan rotation mode for 2 seconds or more. This error is defined as [E06], and the mechanism mode is shifted to STOP with the pinch roller set off. However, no CAPSTAN EMG is detected in the STILL/FF/REW mode.	1. The CAPSTAN FG signal is not received by the syscon CPU. 1) Disconnection in the middle of the signal line. 2) Failure of the CAPSTAN FG pulse generator (MR element). 2. No capstan control voltage is supplied to the MDA. 3. No power is supplied to the CAPSTAN MDA. 4. The capstan cannot be started or capstan rotation is stopped because tape transport load is too high. 1) Tape tension is extremely high. (Mechanical locking) 2) The tape is damaged or soiled with grease, etc. (Tape tangling occurs, etc.)

(DVC_03)

Table 1-7-1

Symbol No. →	①		② (⑪ / ⑫ / ⑬ / ⑭)										③			④		⑤			
Removing order of screw →	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Place to stick screw →					✻																
Reference drawing →	Fig. 1-3-1		Fig. 1-3-2										Fig. 1-3-3			Fig. 1-3-4		Fig. 1-3-5			
Screw tightening torque →	I																				

Symbol No. →	⑥					⑦	⑧		⑨ / ⑩			⑪		⑫	⑬				⑭		
Removing order of screw →	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
Place to stick screw →		✻	✻	✻	✻									✻			✻	✻			
Reference drawing →	Fig. 1-3-6						Fig. 1-3-7		Fig. 1-3-8			Fig. 1-3-9			Fig. 1-3-10						
Screw tightening torque →	I																II		I		

	MONITOR ASSY						
Removing order of screw →	1	2	3	4	5	6	7
Place to stick screw →							
Reference drawing →	Fig. 1-4-1, 2						
Screw tightening torque →	III		IV		III		

	VF UNIT(B/W,COLOR)					
Removing order of screw →	1	2	3	4	5	
Place to stick screw →						
Reference drawing →	Fig. 1-5-1, 2					
Screw tightening torque →	III					

	OP BLOCK ASSY								
Removing order of screw →	1	2	3	4	5	6	7	8	9
Place to stick screw →									
Reference drawing →	Fig. 1-6-1								
Screw tightening torque →	V								

< NOTE >

1) ✻ : Don't reuse the screw, because screw lock bond was applied to them.

2) Pay careful attention to tightening torque for each screw.

I : 0.088N·m (0.9kgf·cm) II : 0.147N·m (1.5kgf·cm) III : 0.069N·m (0.7kgf·cm)

IV : 0.098N·m (1.0kgf·cm) V : 0.118N·m (1.2kgf·cm)

Table 1-8-1

SECTION 2
MECHANISM ADJUSTMENT

2.1 PRELIMINARY REMARKS ON ADJUSTMENT AND REPAIR

2.1.1 Precautions

1. When fastening parts, pay careful attention to the tightening torque of each screw. Unless otherwise specified, tighten a screw with the torque of 0.039 N•m (0.4 kgf•cm).
2. Be sure to disconnect the set from the power supply before fastening and soldering parts.
3. When disconnecting/connecting wires, be careful not to get them and their connectors damaged. (Refer to the Section 1.)
4. When replacing parts, be very careful neither to damage other parts nor to fit wrong parts by mistake.

2.1.2 Notes on procedure for disassemby/assembly

The disassembling procedure table (Table 2-4-1 on page 2-6,a part of the table is shown below for reference)shows the procedure to disassemble/reassemble mechanism parts.
Carefully read the following explanation before starting actual disassembling/reassembling work. The item numbers (circled numbers)in the following explanation correspond to those appearing under respective columns of the table.

(1) Circled numbers appearing in this column indicate the order to remove parts. When reassembling, follow these numbers in the reverse order. Circled numbers in this column correspond to those appearing in drawings of this section.

(2) This column shows part names corresponding to circled numbers in the left column.

(3) The symbol (T or B)appearing in this column shows the side which the objective part is mounted on.
T =the upper side, B =the lower side

(4) Symbols appearing in this column indicate drawing numbers.
Step Part Name Fig. Point Note Remarks

(5) This column indicates parts and points such as screws, washers,springs,and others to be removed/fitted for disassembling/reassembling the mechanism. Besides such the parts, this column occasionally indicates working points.

P = Spring
W = Washer
S = Screw
* = Lock (L),soldering (SD),shield,connector (CN), etc.

Example
- Remove (W1)=Washer W1.
- **Remove the solder at (SD1)=Point SD1.
- **Disconnect Ⓐ =Connector Ⓐ .

(6) Numbers in this column represent the numbers of notes in the text. For example, “1” means “Note 1”.
(For parts that need phase adjustment after reassembling, refer to “2.6 MECHANISM ADJUSTMENTS”.)

(7) This column indicates required after disassembling/reassembling work such as phase adjustment or mechanism adjustment.

NO.	PART NAME		FIG.	POINT	NOTE	REMARKS
Ⓐ	Cassette housing assembly	T	Fig. 2-4-5	3(S1),(L1a)-(L1d)	1a, 1b, 1c, 1d	Adjustment
2a	Reel disk (SUP) assembly	T	Fig. 2-4-6	(W2)	2a, 2b	
2b	Reel disk (TU) assembly	T		(W2)	2a, 2b	
2c	Reel cover assembly	T		(S2b),2(S2a),(W2)	2d	
3a	Tension arm assembly	T	Fig. 2-4-7	(W3a)	3b	
3b	Release guide assembly	T		-	3a	
3c	Idler arm assembly	T		(W3b)	-	
3d	Guide arm assembly	T		-	3a	
3e	Pinch roller arm assembly	T		(W3a)	-	
4a	Cleaner arm assembly	T	Fig. 2-4-8	(L4a)	4a	
4b	Slant pole arm assembly	T		(W4),(L4b),(P4a),(P4b)	4b	
4c	Drum assembly	T		3(S4)	-	
5a	Guide roller (S) assembly	T	Fig. 2-4-9	(P5)	5a	
5b	Rail assembly	T		3(W5a), (W5b)	5b, 5c	

(1) (2) (3) (4) (5) (6) (7)

2.2 JIGS AND TOOLS REQUIRED FOR DISASSEMBLY, ASSEMBLY AND ADJUSTMENT

2.2.1 Tools required for adjustments

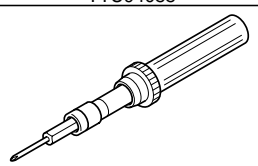
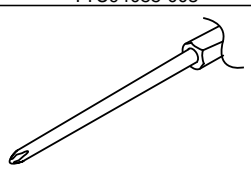
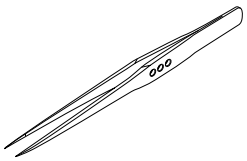
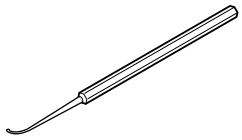
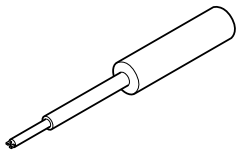
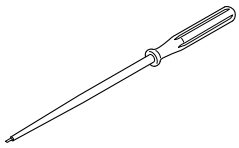
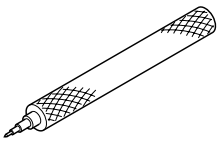
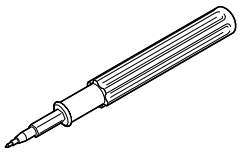
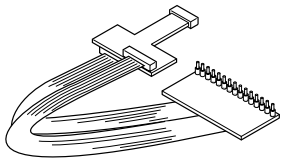
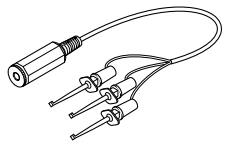
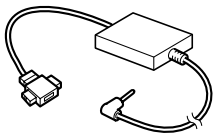
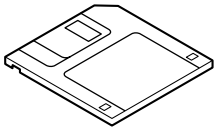
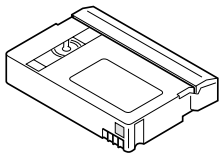
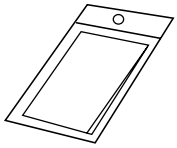
1 Torque Driver YTU94088	2 Bit YTU94088-003
	
3 Tweezers P-895	4 Chip IC Replacement Jig PTS40844-2
	
5 Guide Driver YTU94148A	6 Adjustment Driver YTU94028
	
7 Slit Washer Installation Jig YTU94121A	8 Slit Washer Installation Jig YTU94121B
	
9 Jig Connector cable YTU93082G	10 Communication cable YTU93107A
	
11 PC cable QAM0099-002	12 Service Support System YTU94057-52
	
13 Alignment Tape MC-2	14 Cleaning Cloth KSMM-01
	

Table 2-2-1

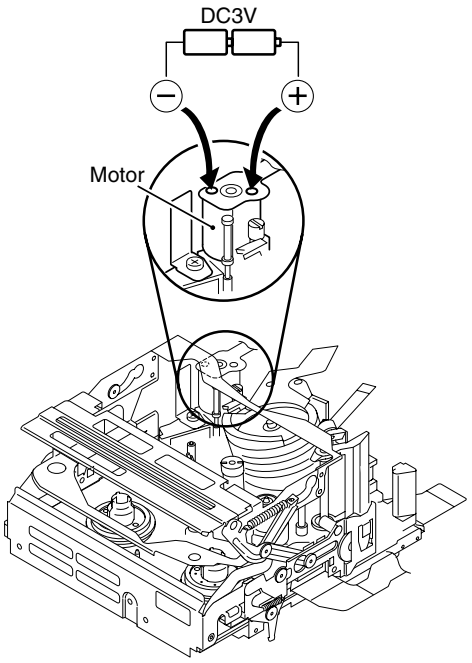
1. **Torque Driver**
   Be sure to use to fastening the mechanism and exterior parts because those parts must strictly be controlled for tightening torque.
2. **Bit**
   This bit is slightly longer than those set in conventional torque drivers.
3. **Tweezers**
   To be used for removing and installing parts and wires.
4. **Chip IC replacement Jig**
   To be used for adjustment of the camera system.
5. **Guide Driver**
   To be used to turn the guide roller to adjustment of the linarity of playback envelope.
6. **Adjustment Driver**
   To be used for adjustment.
7. **Slit washer Installation Jig**
   To be used to install slit washers.
8. **Slit washer Installation Jig (NEW TYPE)**
   To be used to install slit washers.
9. **Jig Connector cable**
   Connected to CN105 of the main board and used for electrical adjustment, etc.
10. **Communication cable**
    Connect the Communication cable between the PC cable and Jig connector cable when performing a PC adjustment.
11. **PC cable**
    To be used to connect the VideoMovie and a personal computer with each other when a personal computer is used for adjustment.
12. **Service Support System**
    To be used for adjustment with a personal computer.
13. **Alignment Tape**
    To be used for check and adjustment of interchangeability of the mechanism.
14. **Cleaning Cloth**
    Recommended cleaning cloth to wipe down the video heads, mechanism (tape transport system), optical lens surface.

2.3 DISASSEMBLY/ASSEMBLY OF MECHANISM ASSEMBLY

2.3.1 General statement

The mechanism should generally be disassembled/assembled in the EJECT mode (ASSEMBLY mode). (Refer to Fig. 2-3-1.)
However, when the mechanism is removed from the main body, it is set in the STOP mode. Therefore, after the mechanism is removed from the main body, supply 3 V DC to the electrode on the top of the loading motor to enter the mechanism mode into the EJECT mode compulsory.

<Mechanism assembly/Cassette housing assembly>



<Back side of the mechanism assembly>

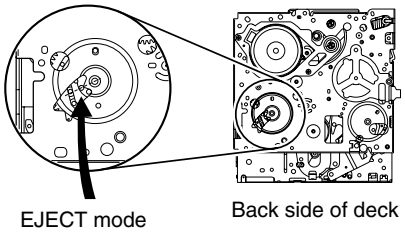


Fig. 2-3-1

2.3.2 Explanation of mechanism mode

The mechanism mode of this model is classified into six modes as shown in Table 2-3-1. Each mechanism mode can be distinguished from others by the relative position of "○" mark on the sub cam gear to the inner or outer protrusion on the main deck.
Refer to Fig. 2-3-2 to 2-3-8 below.
The EJECT mode, C IN mode and SHORT FF mode should be recognized by the relative position of the "○" mark to the inner protrusion, while the STOP mode, REV mode and PLAY mode should be recognized by that to the outer protrusion.

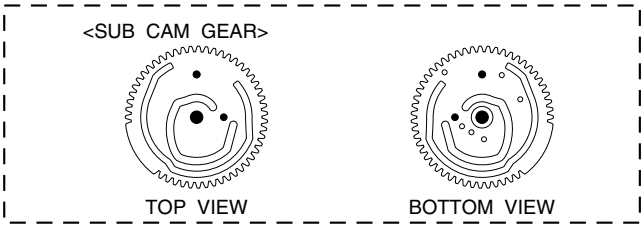


Fig. 2-3-2

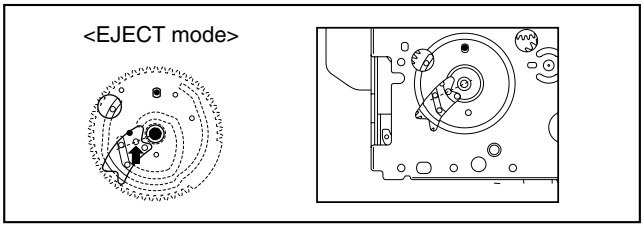


Fig. 2-3-3

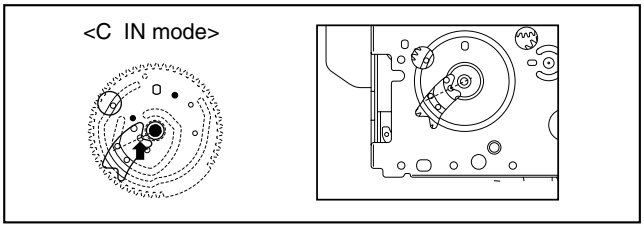


Fig. 2-3-4

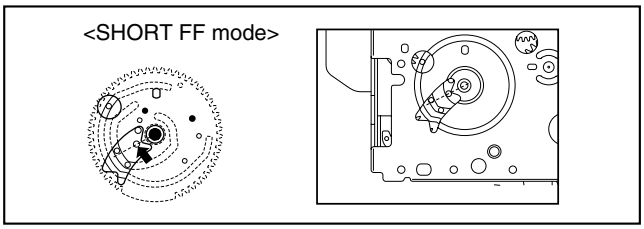


Fig. 2-3-5

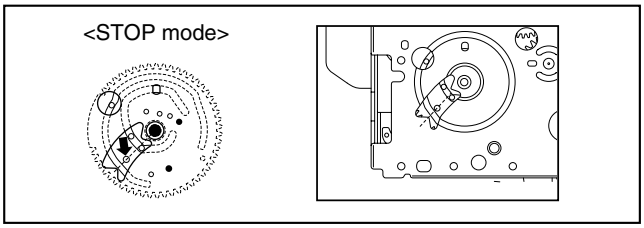


Fig. 2-3-6

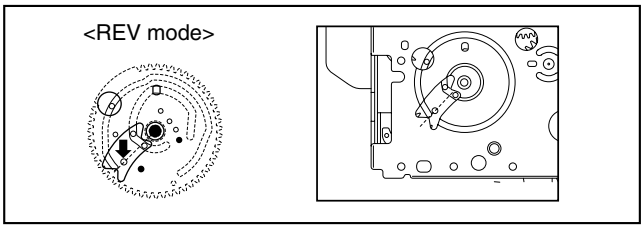


Fig. 2-3-7

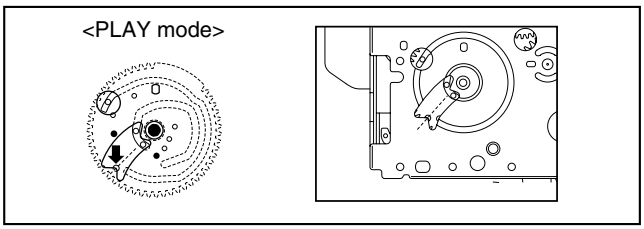
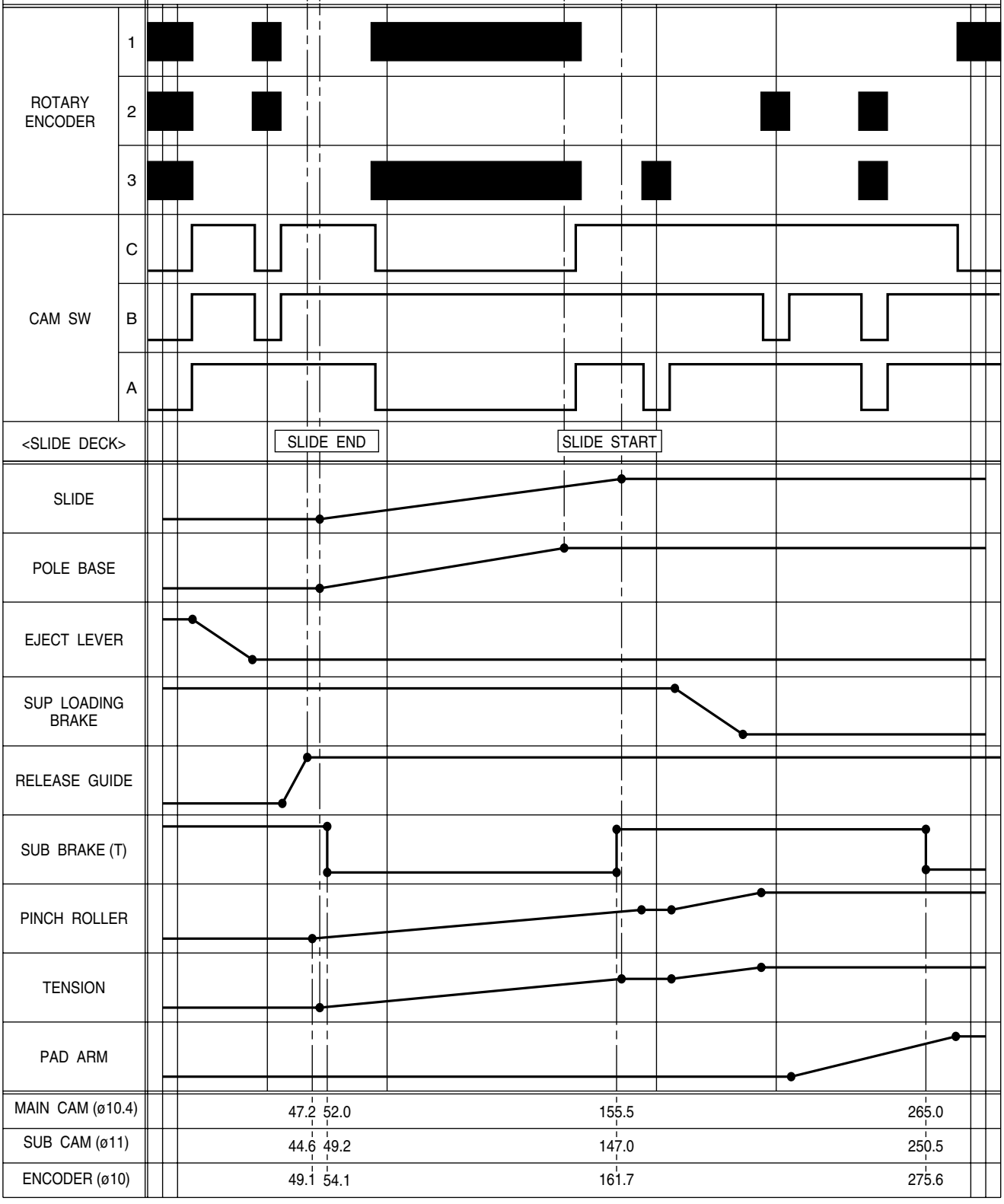


Fig. 2-3-8

2.3.3 Mechanism timing chart

MODE / PARTS	EJECT	C IN	SHORT FF	STOP	REV	PLAY
MAIN CAM (ø10.4)	0	31.7 45.6 49.5	74.04	129.5 156.6 169.2	211.5	280.3
SUB CAM (ø11)	0	30 43.1 46.8	70	122.5 148.1 160	200	265
ENCODER (ø10)	0	33 47.4 51.5	77	134.7 162.9 176	220	291.5



MAIN CAM (ø10.4)	47.2 52.0	155.5	265.0
SUB CAM (ø11)	44.6 49.2	147.0	250.5
ENCODER (ø10)	49.1 54.1	161.7	275.6

Table 2-3-1

2.4 DISASSEMBLY/ASSEMBLY OF MECHANISM ASSEMBLY

2.4.1 Follow chart

1. Configuration

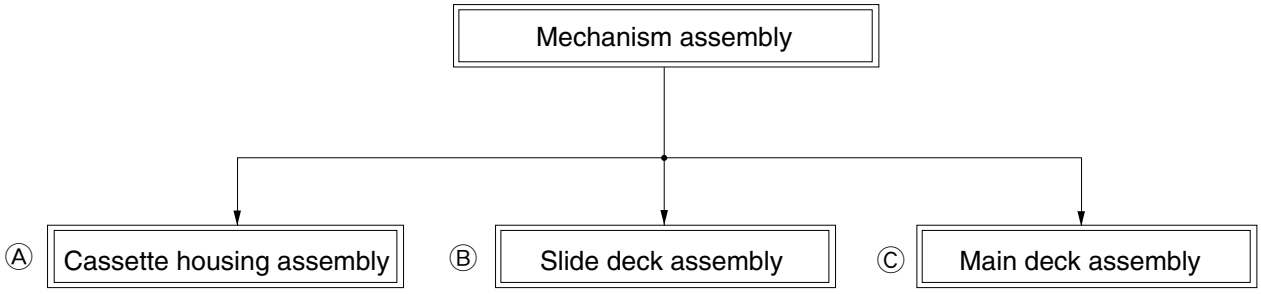


Fig. 2-4-1

2. Procedures for disassembly

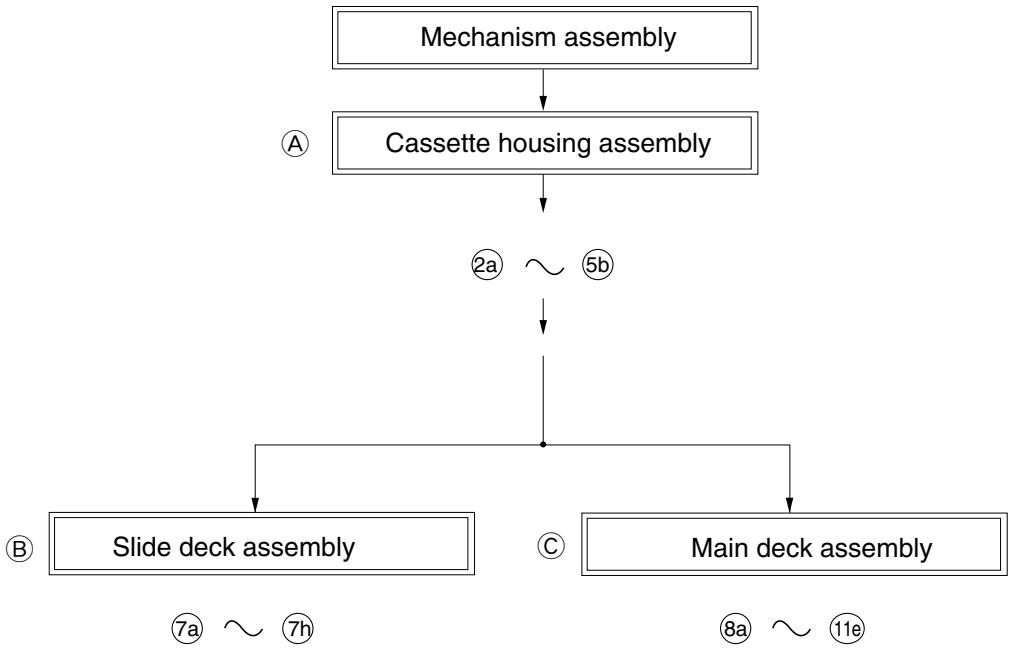


Fig. 2-4-2

3. Disassembling procedure table

NO.	PART NAME		FIG.	POINT	NOTE	REMARKS
Ⓐ	Cassette housing assembly	T	Fig. 2-4-5	3(S1),(L1a)-(L1d)	1a, 1b, 1c, 1d	Adjustment
2a	Reel disk (SUP) assembly	T	Fig. 2-4-6	(W2)	2a, 2b	
2b	Reel disk (TU) assembly	T		(W2)	2a, 2b	
2c	Reel cover assembly	T		(S2b),2(S2a),(W2)	2d	
3a	Tension arm assembly	T	Fig. 2-4-7	(W3a)	3b	
3b	Release guide assembly	T		-	3a	
3c	Idler arm assembly	T		(W3b)	-	
3d	Guide arm assembly	T		-	3a	
3e	Pinch roller arm assembly	T		(W3a)	-	
4a	Cleaner arm assembly	T	Fig. 2-4-8	(L4a)	4a	
4b	Slant pole arm assembly	T		(W4),(L4b),(P4a),(P4b)	4b	
4c	Drum assembly	T		3(S4)	-	
5a	Guide roller (S) assembly	T	Fig. 2-4-9	(P5)	5a	
5b	Rail assembly	T		3(W5a), (W5b)	5b, 5c	
Ⓑ	Slide deck assembly / Ⓒ Main deck assembly	T	Fig. 2-4-10	(W6),(L6a)-(L6d)	6a, 6b	(Adjustment)
Ⓑ	Slide deck assembly					
7a	Loading brake assembly	T	Fig. 2-4-11	(W7),(L7a),(P7a)	7e	Adjustment
7b	Guide pin (S)	T		(S7a)	-	
7c	Pad arm assembly	T		(W7),(L7b),(P7b)	7d	
7d	Slide guide plate assembly	T		(S7b)	7c	Adjustment
7e	Collar	T		-	7a	
7f	Collar	T		-	7a	
7g	Sub brake assembly	T		(W7),(L7c),(P7c)	7b	
7h	Control plate assembly	T		2(W7),(L7d),(P7d)	7b	
Ⓒ	Main deck assembly					
8a	Tension lever assembly	T	Fig. 2-4-12	-	8c	
8b	Slide lever assembly	T		-	8b	
8c	Brake control lever assembly	T		-	8a	
9a	Loading guide	T	Fig. 2-4-13	(S9)	-	
9b	Timing belt	T		-	9b	
9c	Center gear assembly	T		-	-	
9d	Motor bracket assembly	T		2(S9)	9a	
9e	Worm wheel	T		(W9)	-	(Phase adjustment)
9f	Gear holder	T		(S9)	-	
10a	Main cam gear	T	Fig. 2-4-14	(S10)	10b	Phase adjustment
10b	Brake control plate	T		(L10)	10b	Phase adjustment
10c	Rotary encoder	T		(S10),(W10a)	10a	Phase adjustment
10d	Connect gear	T		(W10a)	-	(Phase adjustment)
10e	Reel drive pulley assembly	T		(W10b)	-	
11a	Catcher (T) assembly	T	Fig. 2-4-15	2(S11)	-	
11b	Capstan motor	T		2(S11)	-	
11c	Charge arm assembly	T		(W11)	11	
11d	Sub cam gear	T		(S11)	-	Phase adjustment
11e	PWB holder	B		2(S11)	-	

Table 2-4-1

< TOP VIEW >

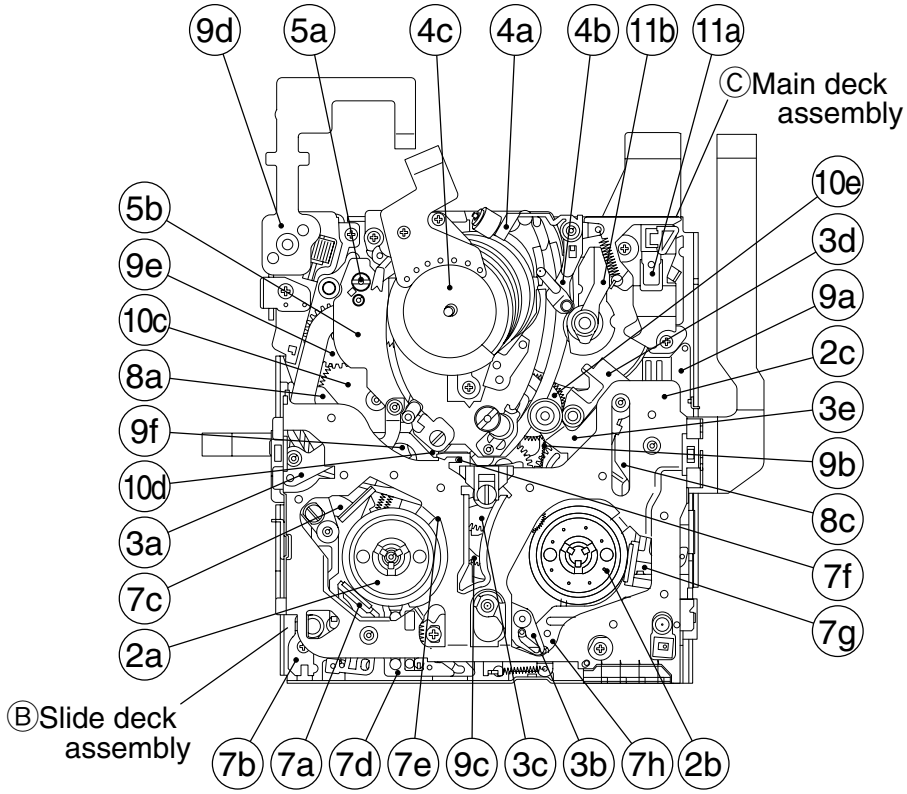


Fig. 2-4-3

< BOTTOM VIEW >

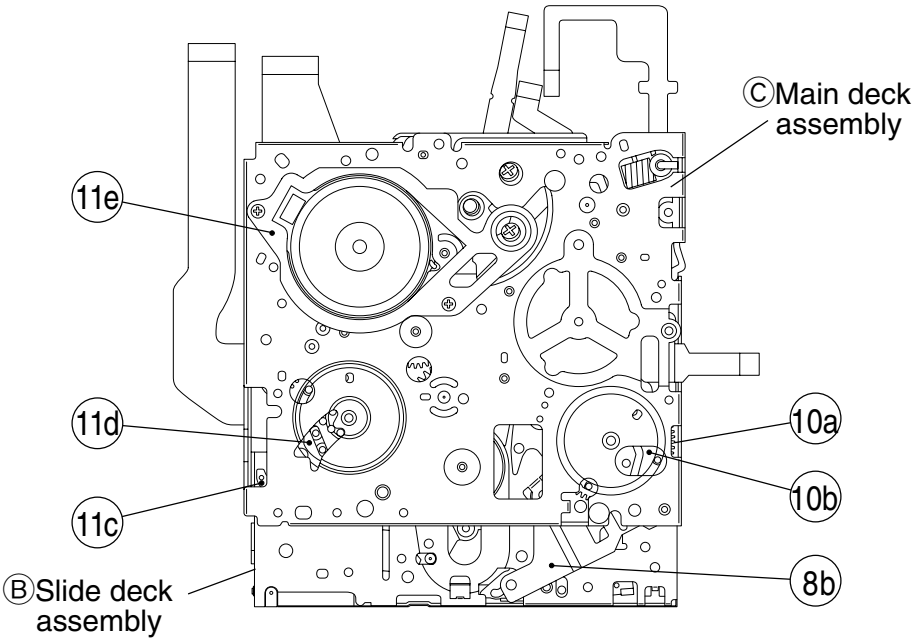


Fig. 2-4-4

2.4.2 Disassembly/assembly

1. Ⓐ Cassette housing assembly

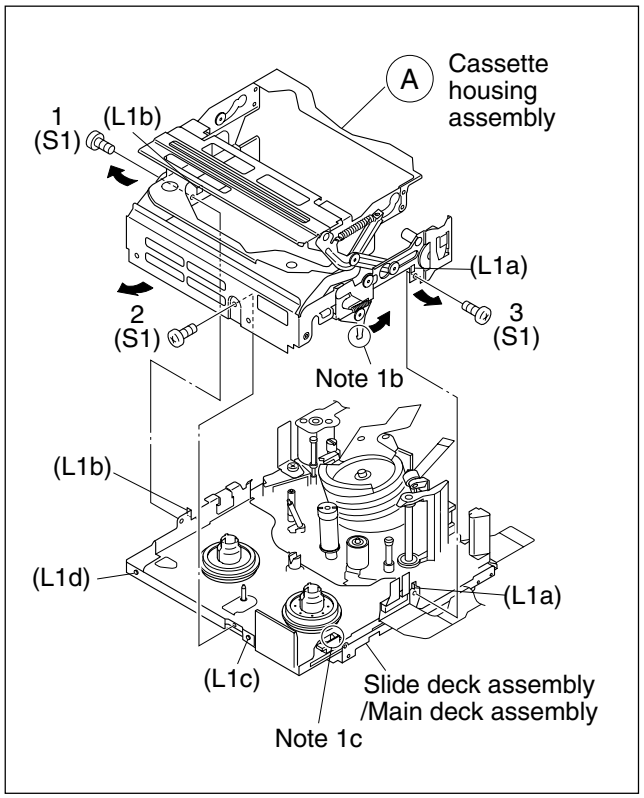
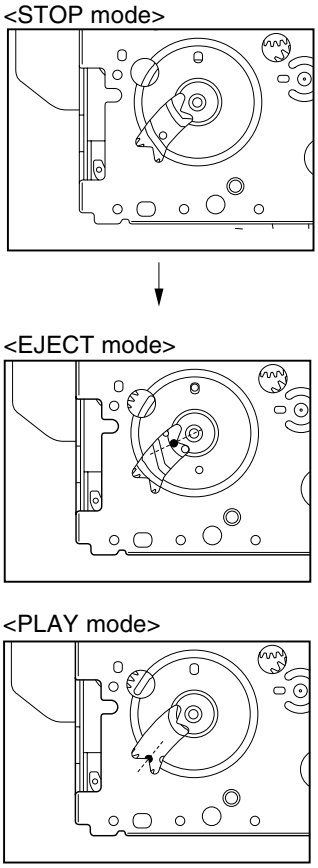


Fig. 2-4-5



Note 1a:
Shift the mechanism mode from the STOP mode to the EJECT mode.

Note 1b:
Reassemble the cassette housing assembly to the mechanism as the cancel lever is moved in the direction of the arrow.

Note 1c:
When reassembling the cassette housing to the mechanism, make sure that there is no deformation in the frame or no damage to the switches, etc.

Note 1d:
After reassembling the component parts, check the mechanism operation in the PLAY mode.
For details of checking method, refer to "2.6.1 assembling slide deck assembly and main deck assembly".

2. Ⓐ Reel disk (SUP) assembly
Ⓑ Reel disk (TU) assembly
Ⓒ Reel cover assembly

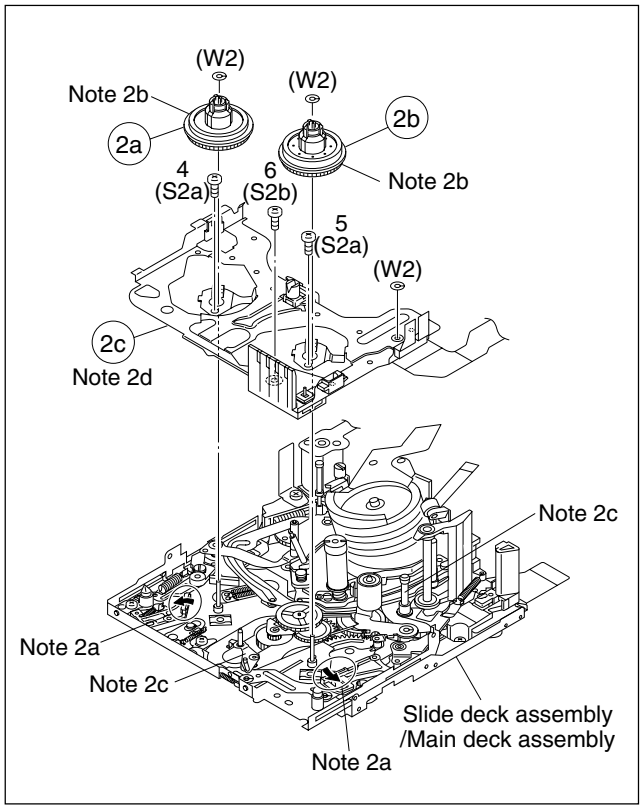
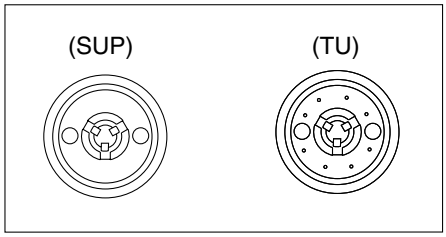


Fig. 2-4-6

Note 2a:
When removing the reel disk assembly, be careful not to break the brake pad which applies lateral pressure to the reel disk.

Note 2b:
Be careful not to make a mistake in installing the reel disk. The SUP reel disk and TU reel disk can be distinguished from each other by the appearance as shown below.



Note 2c:
When reassembling the cassette housing to the mechanism, make sure that there is no deformation in the frame or no damage to the switches, etc.

Note 2d:
When fitting the reel cover assembly to the set, carefully tighten the screw with the specified tightening torque of 0.069N•m (0.7kgf•cm).

3. (3a) Tension arm assembly/ (3b) Release guide assembly (3c) Idler arm assembly/ (3d) Guide arm assembly (3e) Pinch roller arm assembly

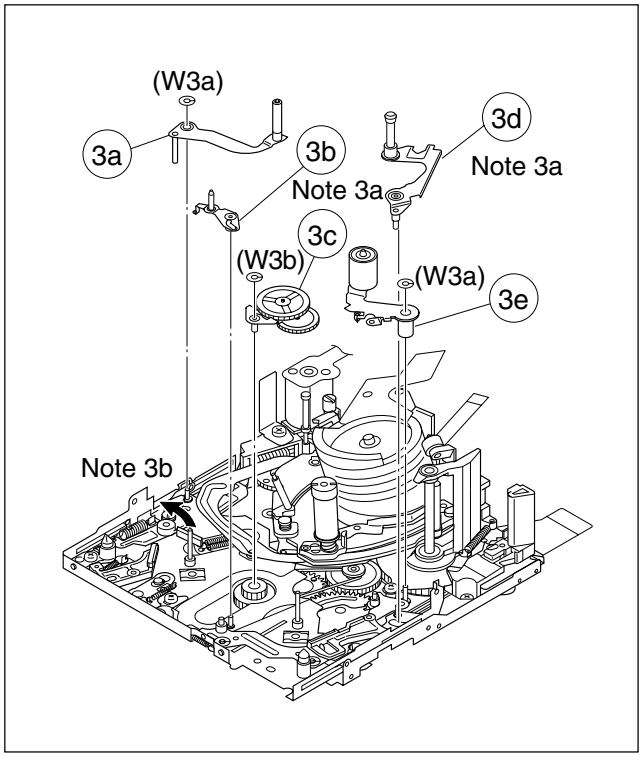
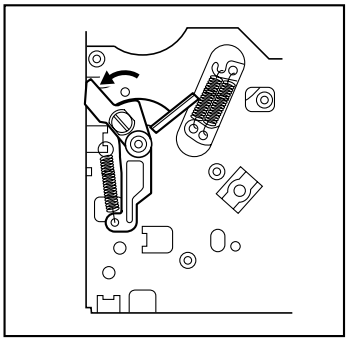


Fig. 2-4-7

Note 3a:
When removing the reel cover assembly, pay heed to release guide assembly and guide arm assembly. For the guide arm assembly is just inserted into the slide deck assembly from the upside and it is apt to come off after the reel cover assembly is removed.

Note 3b:
Reassemble the tension arm assembly to the mechanism as the pad arm assembly is moved to the extent in the direction of the arrow.



4. (4a) Cleaner arm assembly/ (4b) Slant pole arm assembly (4c) Drum assembly

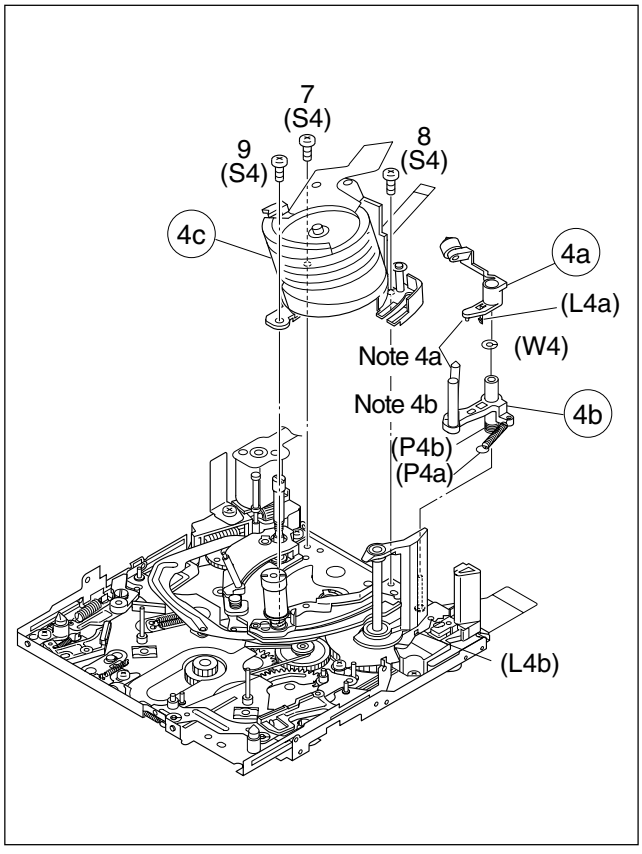
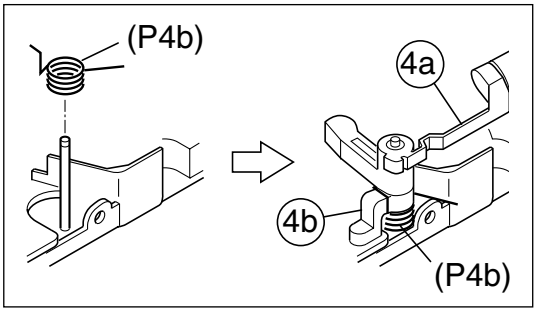


Fig. 2-4-8

Note 4a:
When removing the cleaner arm assembly, it is recommended to remove the slant pole arm assembly together with it except the case of a single unit replacement, because the hook (L4a) is hard to disengage.

Note 4b:
How to set the coil spring (P4b).



5. (5a) Guide roller (S) assembly/ (5b) Rail assembly

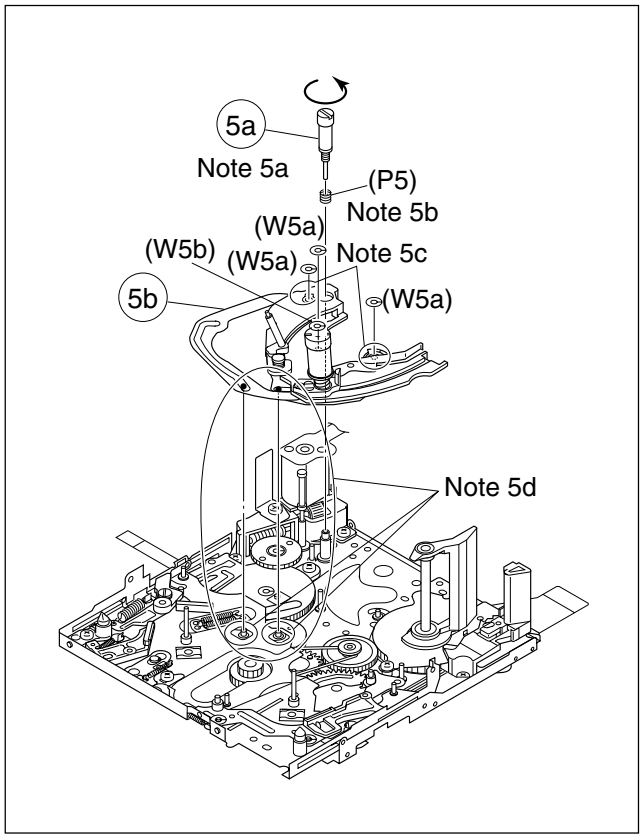
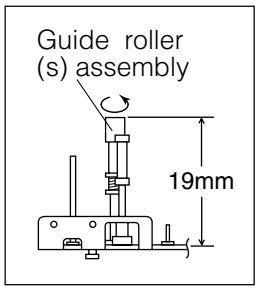


Fig. 2-4-9

Note 5a:
When reassembling, insert the tip of the guide roller with the coil spring put on it into the hole on the main deck. Tighten the guide roller by about 6 turns so that the height of the guide roller assembly is 19 mm or so as shown in the figure.



Note 5b:
Pay careful attention to the spring not to lose it.

Note 5c:
Pay careful attention to the engagement of the rail assembly's arm ends because they easily come off the engagement. Moreover, make sure that there is neither deformation nor damage observed in them.

Note 5d:
When removing the rail assembly, check to see if the collar is securely set in the arm groove.

6. (B) Slide deck assembly/ (C) Main deck assembly

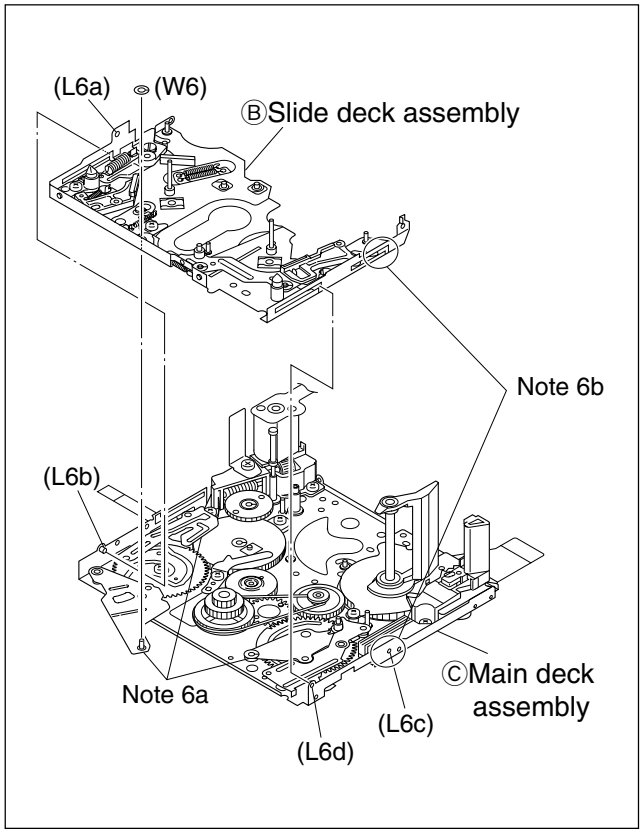
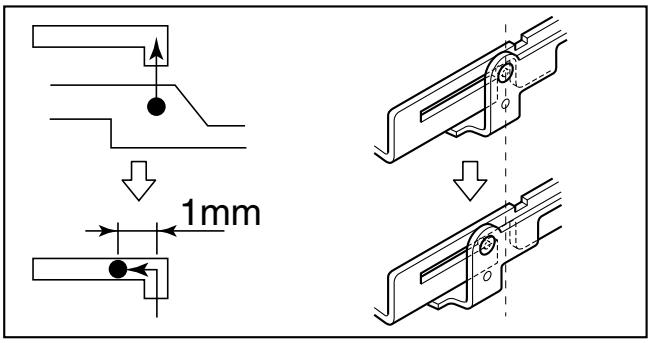


Fig. 2-4-10

Note 6a:
When removing the slide deck assembly, pay heed to the three components of the following because they are apt to come off after the slide deck assembly is removed.

(8a) Tension lever assembly/ (8b) Slide lever assembly
(8c) Brake control lever assembly
For reassembling those components, refer to Fig. 2-4-12.

Note 6b:
When reassembling the slide deck assembly to the main deck assembly, combine them with each other by the side grooves and then slide the slide deck assembly by 1 mm or so.



7. (7a) Loading brake assembly/ (7b) Guide pin (S)
(7c) Pad arm assembly/ (7d) Slide guide plate assembly
(7e) Collar/ (7f) Collar/ (7g) Sub brake assembly
(7h) Control plate assembly

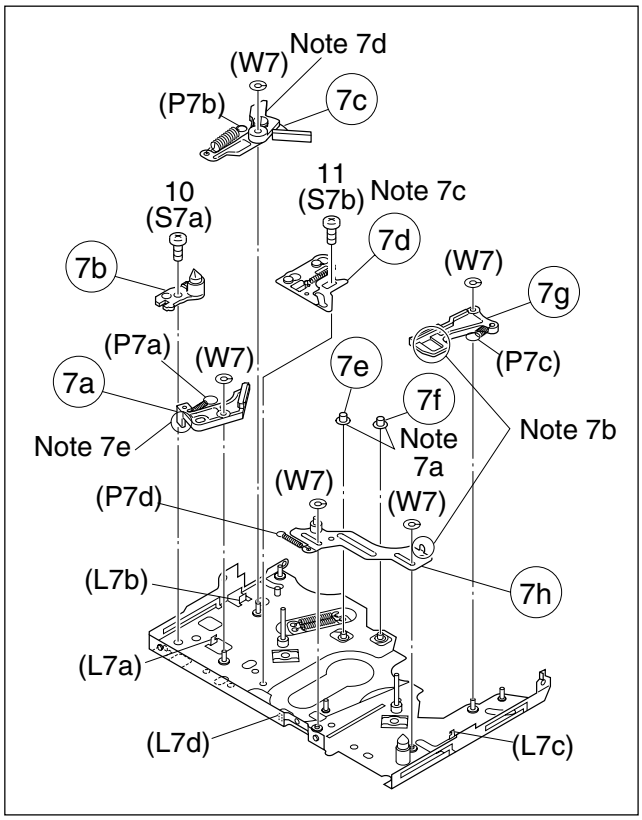


Fig. 2-4-11

8. (8a) Tension lever assembly/ (8b) Slide lever assembly
(8c) Brake control lever assembly

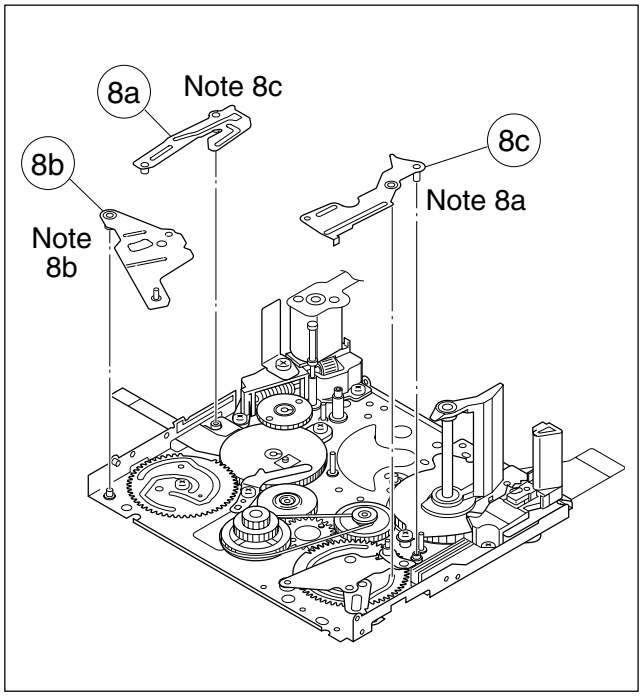
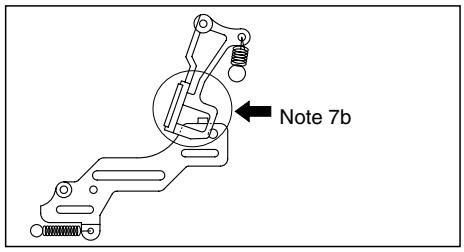


Fig. 2-4-12

Note 7a:
Don't remove these parts unreasonably. If they are removed for some reason, be very careful not to lose them.

Note 7b:
When reinstalling the sub brake assembly, set the control plate assembly so that its hook is set in the □ part of the sub brake assembly.



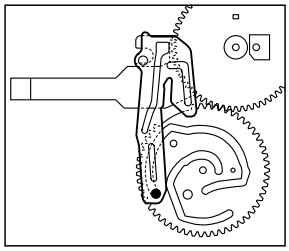
Note 7c:
Since the slide guide plate assembly controls the slide deck assembly so that it exactly slides the main deck assembly, it must exactly be assembled in the PLAY mode. Therefore, temporarily fix the slide guide plate assembly in this stage. For details of reassembling procedure, refer to "2.6.1 Assembling slide deck assembly and main deck assembly" .

Note 7d:
The pad arm assembly controls the tension level of the tension arm assembly. For adjustment of the tension arm assembly, refer to "2.6.2 Locating tension pole".

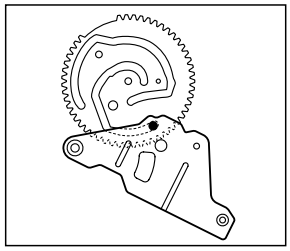
Note 7e:
When reinstalling the load brake assembly, slightly lift the slide deck assembly upwards because the lower part of the load brake assembly sticks out of the slide deck assembly.

Note 8a, 8b, 8c:
For refitting the respective parts, refer to the following figures

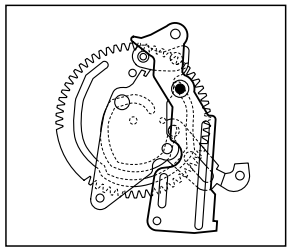
(8a) Tension lever assembly



(8b) Slide lever assembly



(8c) Brake control lever assembly



9. (9a) Loading guide/ (9b) Timing belt
(9c) Center gear assembly/ (9d) Motor bracket assembly
(9e) Worm wheel/ (9f) Gear holder

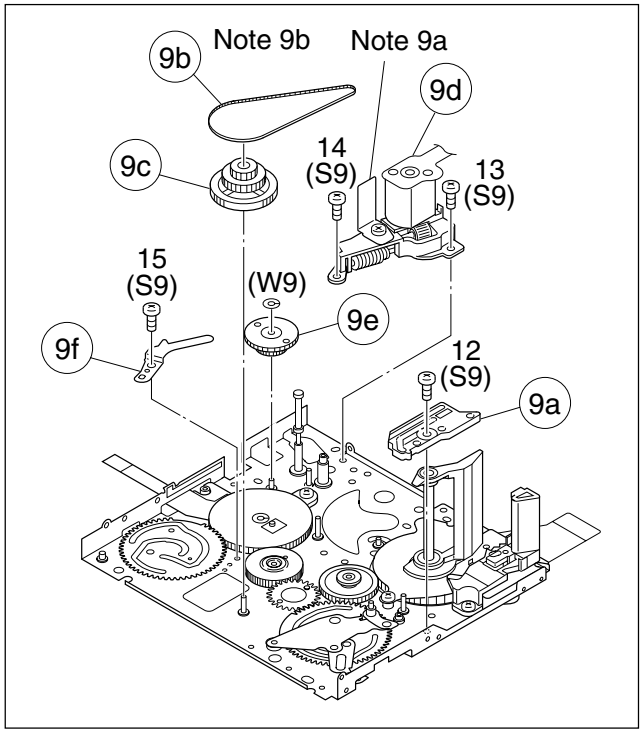


Fig. 2-4-13

Note 9a:
Carefully handle the DEW sensor. (Don't touch the sensor surface in particular.)

Note 9b:
When engaging the timing belt, make sure that it securely engages with the gears of both the center gear assembly and reel drive pulley assembly.

10. (10a) Main cam gear/ (10b) Brake control plate
(10c) Rotary encoder/ (10d) Connect gear
(10e) Reel drive pulley assembly

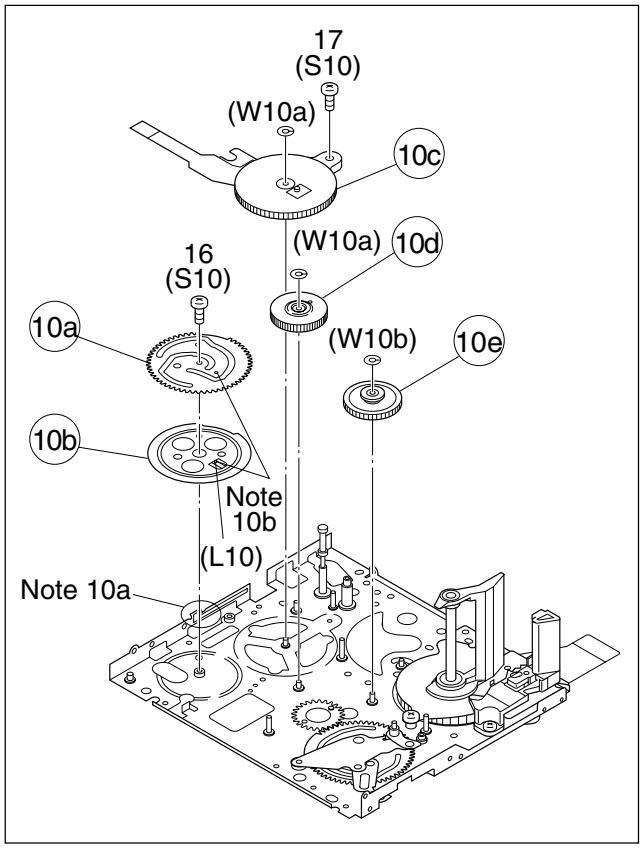
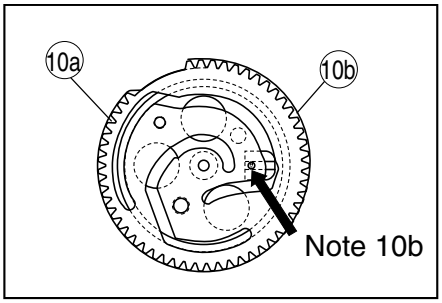


Fig. 2-4-14

Note 10a:
When removing/refitting parts, pay careful attention to the flexible board and so on not to damage them.

Note 10b:
When reinstalling the main cam gear and the brake control plate, first fit them together so that the protrusion on the brake control plate is set in the slot on the main cam gear as shown below, next install the two together to the main deck assembly.



11. (11a) Catcher (T) assembly/ (11b) Capstan motor
(11c) Charge arm assembly/ (11d) Sub cam gear
(11e) PWB holder

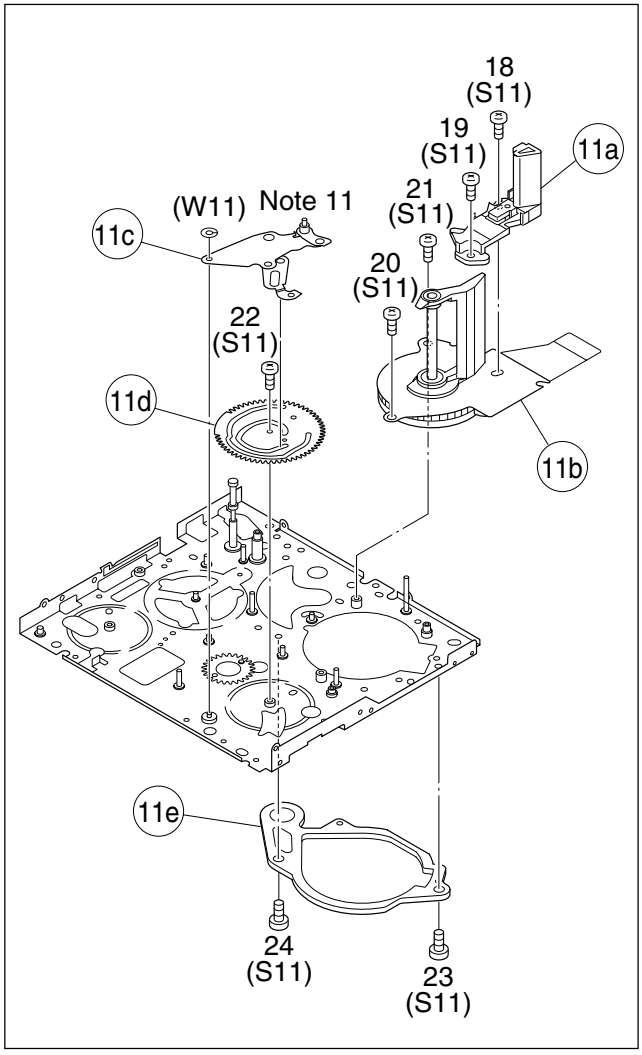
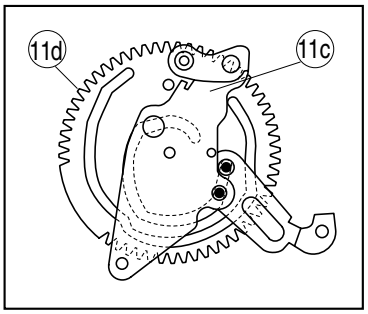
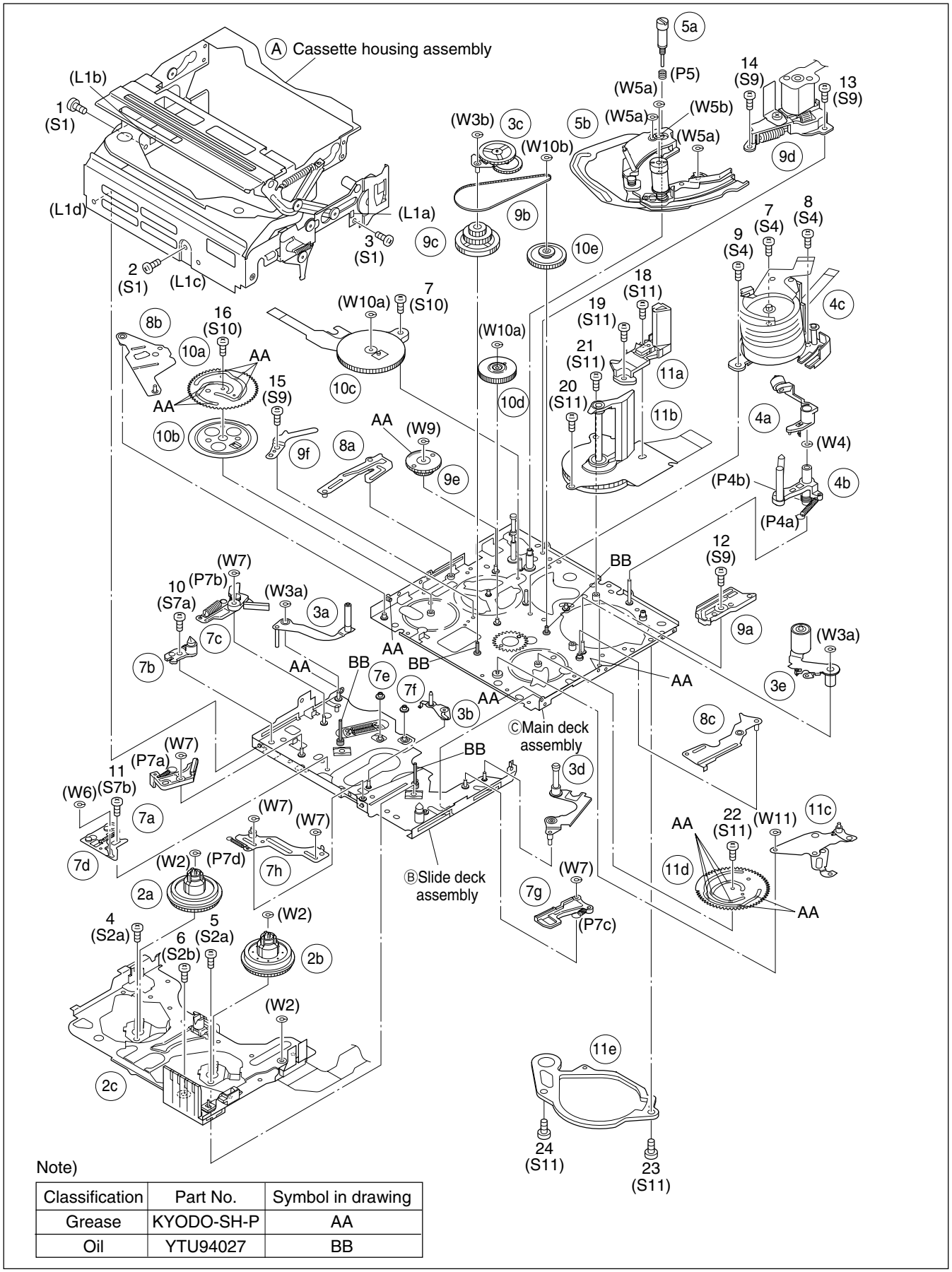


Fig. 2-4-15

Note 11:
The following figure shows how to put the charge arm assembly and sub cam gear assembly together.



2.4.3 List of procedures for disassembly

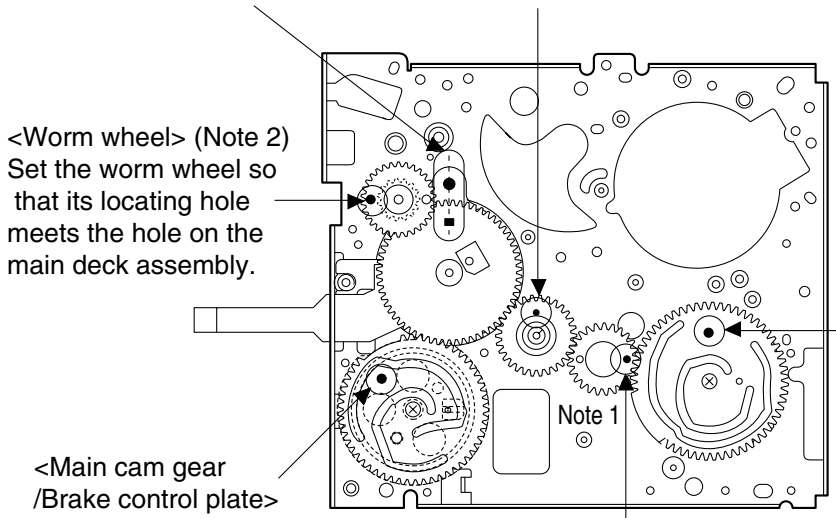


Note)

Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-P	AA
Oil	YTU94027	BB

Fig. 2-4-16

2.5 CHECKUP AND ADJUSTMENT OF MECHANISM PHASE



<Rotary encoder>
Set the "■" of the rotary part at the tapped hole as shown in the figure.

<Connect gear> (Note 2)
Set the connect gear so that its locating hole meets the hole on the main deck assembly.

<Worm wheel> (Note 2)
Set the worm wheel so that its locating hole meets the hole on the main deck assembly.

<Sub cam gear>
Set the sub cam gear so that its locating hole meets the hole on the main deck assembly. This state represents that the mechanism is in the EJECT mode, which is the "mechanism assembly mode".

<Main cam gear /Brake control plate>
After fitting the main cam gear and brake control plate together,set them together so that their locating holes meet the hole on the main deck assembly.

<Connect gear 2> (Note 2)
Set the connect gear 2 so that its locating hole meets the hole on the main deck assembly.

Note 1:
Since the connect gear 2 is tightly fixed to the main deck by caulking, adjust its phase with the connect gear and sub cam gear.

Note 2:
The part that needs phase adjustment by the hole on the main deck assembly must exactly be set as the specified phase. There is a fear that some part is installed in a wrong phase because assembling of the mechanism is automated. If so, set every part in the correct phase whenever the mechanism is reassembled.

Fig. 2-5-1

2.6 MECHANISM ADJUSTMENTS

2.6.1 Assembling slide deck assembly and main deck assembly

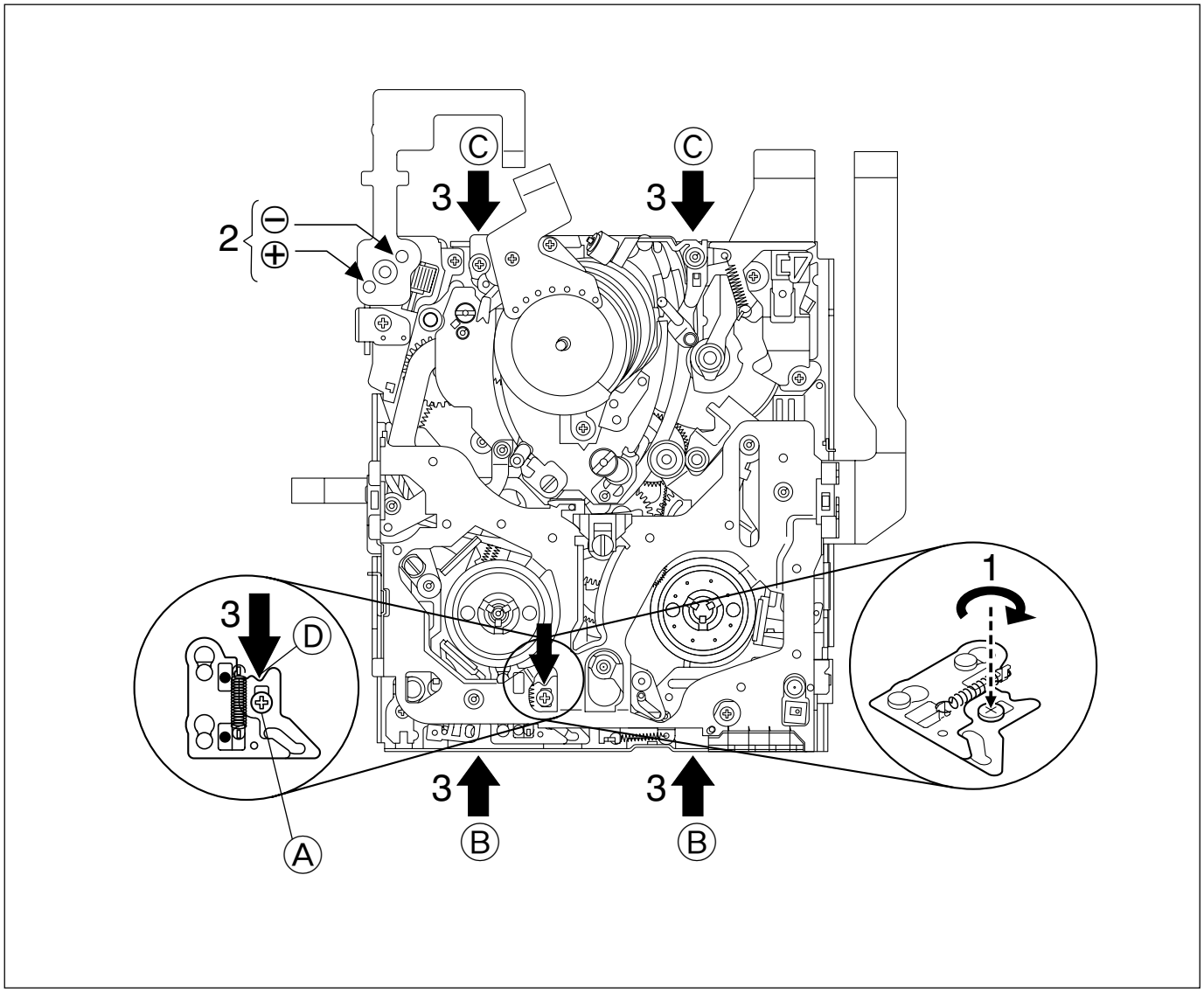


Fig. 2-6-1

Assembling procedure

1. Loosen the screw Ⓐ.
2. Set the mechanism in the PLAY mode.
   (Refer to “2.3.2 Explanation of mechanism mode”.)
3. Press the end face Ⓑ of the slide deck assembly (reel disk side) and the end face Ⓒ of the main deck assembly (drum assembly side) with uniform force so that the two assemblies are tightly pressed to each other. Furthermore, press the part Ⓓ and tighten the screw Ⓐ.

Note : *Tightening torque for screw Ⓐ: 0.069 N·m (0.7 kgf·cm)*

2.6.2 Locating tension pole

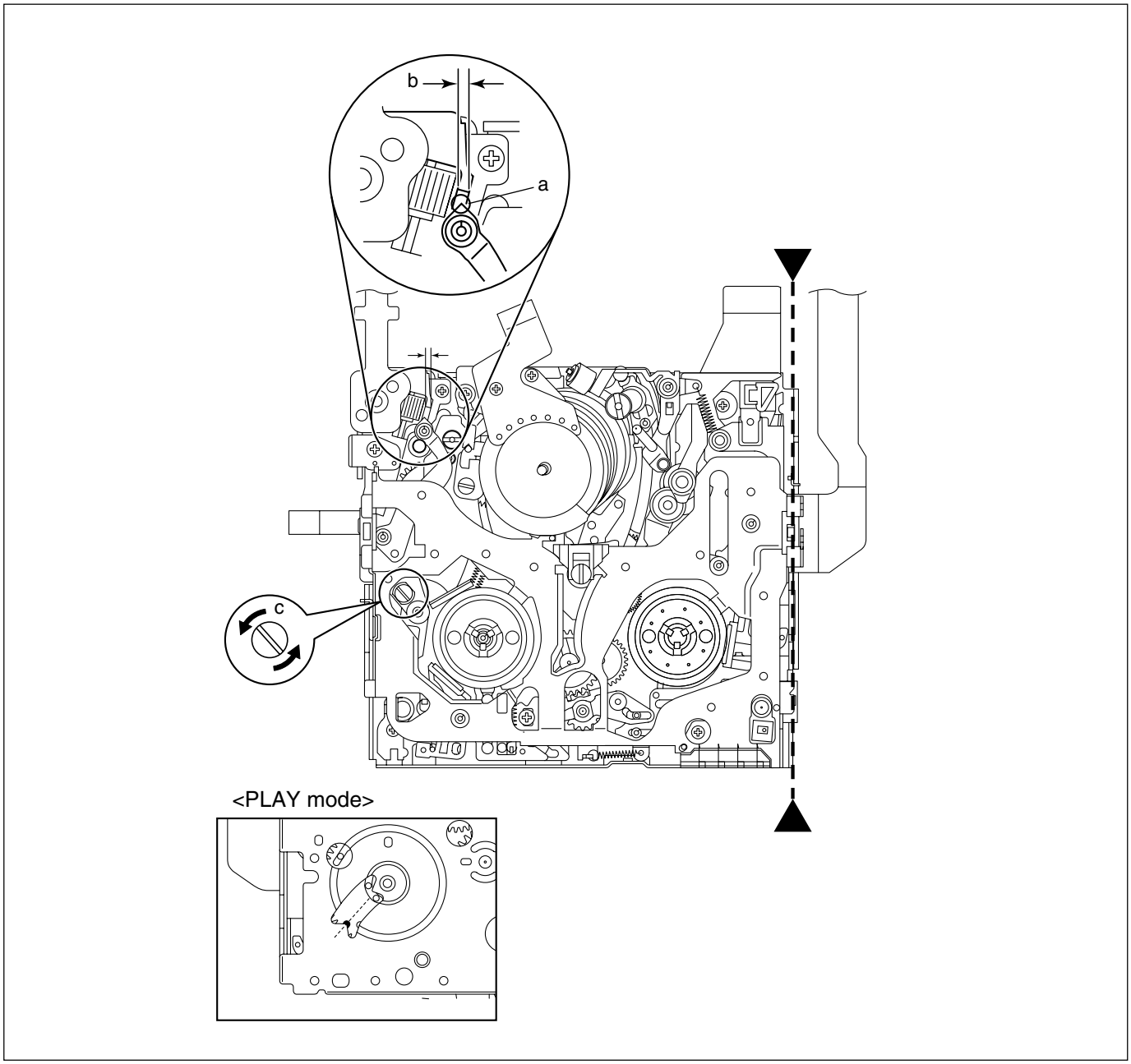


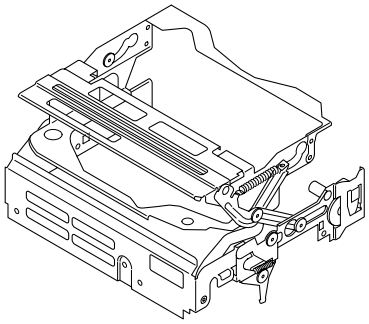
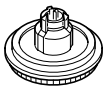
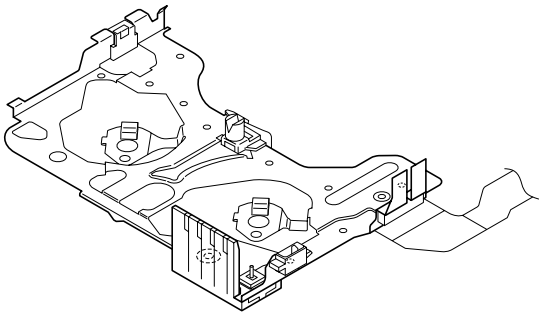
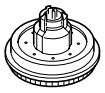
Fig. 2-6-2

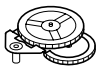
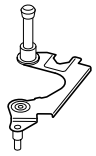
Locating procedure

1. Enter the mechanism assembly into the PLAY mode. (Refer to “2.3.2 Explanation of mechanism mode”.)
2. When the “ ▶-----◀ ” part is positioned down, make sure that the part “a” of the tension arm assembly is located within the range of “b”.
3. If the part “a” is out of the range, turn the pin “c” to adjust the position.

2.7 SERVICE NOTE

Use the following chart to manage mechanism parts that are removed for disassembling the mechanism.

<table>
<tr><td>1</td><td colspan="5">(A) Cassette housing assembly
 
S1×3</td></tr>
<tr><td rowspan="2">2</td><td colspan="2">(2a) Reel disk (SUP) assembly
 
W2×1</td><td colspan="3" rowspan="2">(2c) Reel cover assembly
 
S2a×2 S2b×1 W2×1</td></tr>
<tr><td colspan="2">(2b) Reel disk (TU) assembly
 
W2×1</td></tr>
<tr><td>3</td><td>(3a) Tension arm assembly

W3a×1</td><td>(3b) Release guide assembly
 </td><td>(3c) Idler arm assembly
 
W3b×1</td><td>(3d) Guide arm assembly
  </td><td colspan="2">(3e) Pinch roller arm assembly

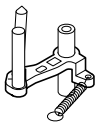
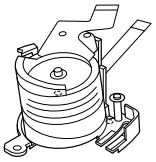
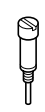
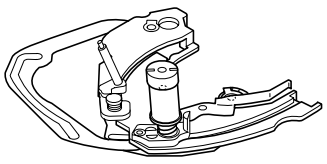
W3a×1</td></tr>
<tr><td>4</td><td>(4a) Cleaner arm assembly
 </td><td colspan="2">(4b) Slant pole arm assembly
 
W4×1 P4a×1 P4b×1</td><td colspan="2">(4c) Drum assembly
 
S4×3</td></tr>
<tr><td>5</td><td>(5a) Guide roller (S) assembly
 
P5×1</td><td colspan="4">(5b) Rail assembly
 
W5a×3 W5b×1</td></tr>
</table>

Table 2-7-1a

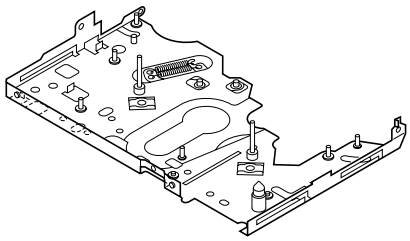
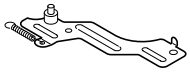
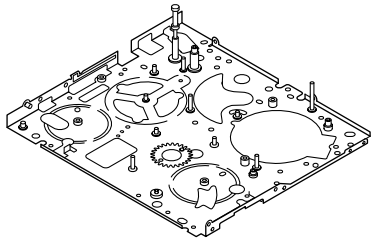
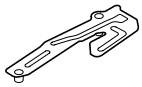
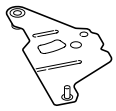
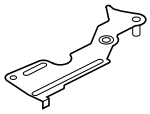
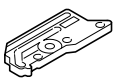
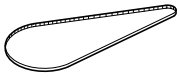
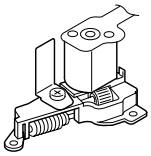
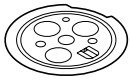
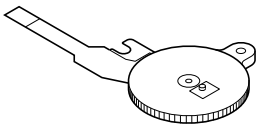
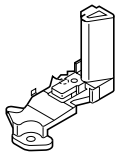
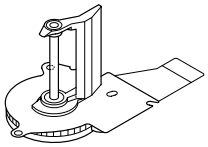
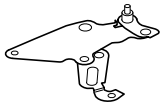
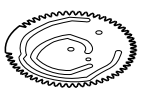
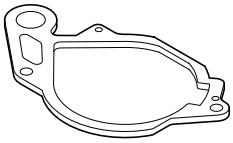
6	B Slide deck assembly  W6×1	7	7a Loading brake assembly W7×1 P7a×1	7b Guide pin (S) S7a×1	7c Pad arm assembly W7×1 P7b×1	7d Slide guide plate assembly S7b×1
			7e Collar	7f Collar	7g Sub brake assembly W7×1 P7c×1	7h Control plate assembly  W7×2 P7d×1
8	C Main deck assembly 		8a Tension lever assembly 	8b Slide lever assembly 	8c Brake control lever assembly 	
9	9a Loading guide  S9×1	9b Timing belt 	9c Center gear assembly	9d Motor bracket assembly  S9×2	9e Worm wheel W9×1	9f Gear holder S9×1
10	10a Main cam gear S10×1	10b Brake control plate 	10c Rotary encoder  S10×1 W10a×1	10d Connect gear W10a×1	10e Reel drive pulley assembly W10b×1	
11	11a Catcher (T) assembly  S11×2	11b Capstan motor  S11×2	11c Charge arm assembly  W11×1	11d Sub cam gear  S11×1	11e PWB holder  S11×2	

Table 2-7-1b

2.8 JIG CONNECTOR CABLE CONNECTION

Remove one screw (1) first and the cover (JIG) next.

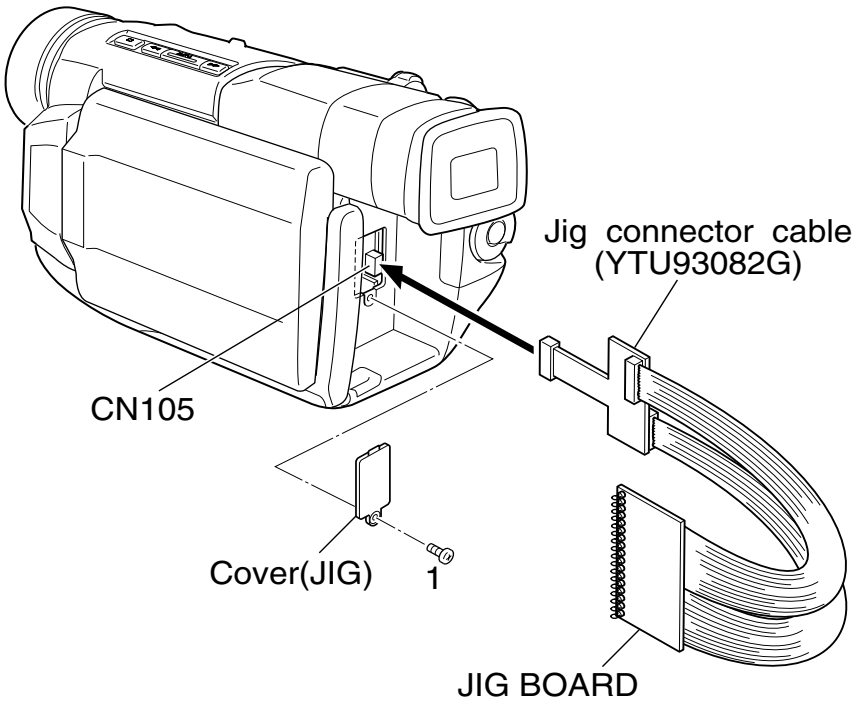


Fig. 2-8-1 Jig connector cable connection

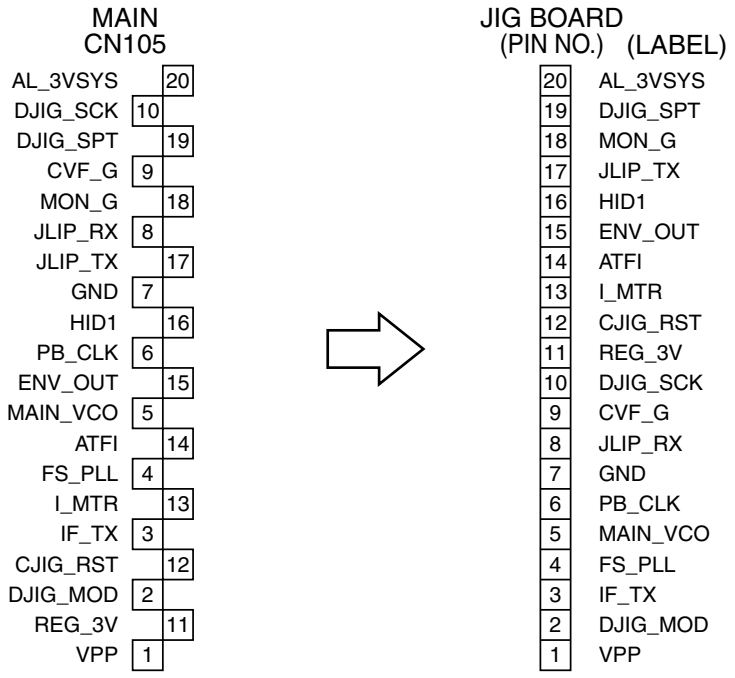


Fig. 2-8-2 Jig connector cable schematic diagram

SECTION 3
ELECTRICAL ADJUSTMENT

3.1 PRECAUTION

1. Precaution

Both the camera and deck sections of this model needs a personal computer for adjustment except simple adjustment with potentiometers. If some of the following parts is replaced for repair or other reason, the repaired set must be adjusted with a personal computer.

- OP block
- E^2PROM (IC1003 of MAIN board)
- MONITOR
- E^2PROM (IC7603 of MONITOR board)

In the event of malfunction with electrical circuits, trouble-shooting with the aid of proper test instruments most be done first, and then commence necessary repair, replacement and adjustment, etc.

1. In case of wiring to chip test points for measurement, use IC clips, etc. to avoid any stress.
2. Since connectors are fragile, carefully handle them in dis-connecting and connecting.
3. Shortcircuit between operation un it and DECK chassis.

2. Required test equipment

1. Color TV monitor.
2. AC power adapter/charger
3. Oscilloscope (dual-trace type, observable 100 MHz or higher frequency)
   Note : *It is recommended to use one observable 300 MHz or higher frequency.*
4. Digital voltmeter
5. Frequency counter (with threshold level adjuster)
6. Personal computer

3. Tools required for adjustments

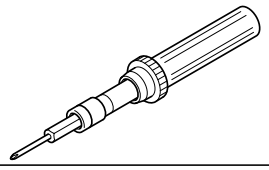
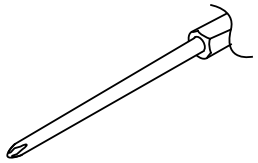
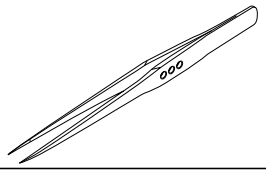
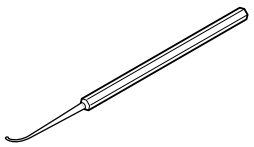
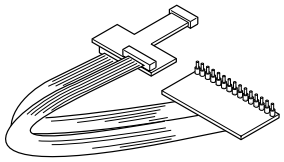
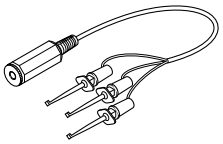
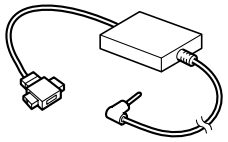
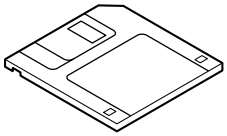
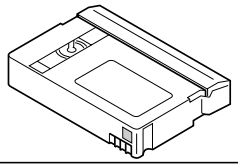
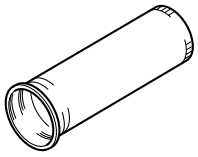
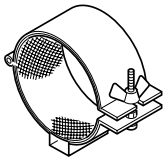
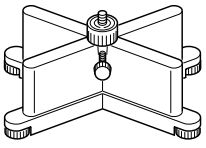
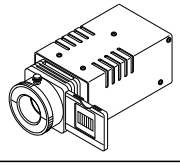
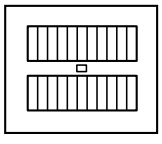
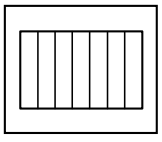
1 Torque Driver YTU94088	2 Bit YTU94088-003
	
3 Tweezers P-895	4 Chip IC Replacement Jig PTS40844-2
	
5 Jig Connector Cable YTU93082G	6 Communication Cable YTU93107A
	
7 PC Cable QAM0099-002	8 Service Support System YTU94057-52
	
9 Alignment Tape MC-2	10 INF Adjustment Lens YTU92001B
	
11 INF Adjustment Lens Holder YTU94087	12 Camera Stand YTU93079
	
13 Light box Assembly YTU93096A	14 Gray Scale Chart YTU94133A
	
15 Color Bar Chart YTU94133C	
	

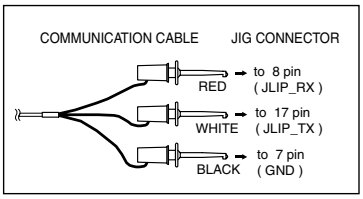
Table 3-1-1

1. **Torque driver**
   Be sure to use to fastening the mechanism and exterior parts because those parts must strictly be controlled for tightening torque.
2. **Bit**
   This bit is slightly longer than those set in conventional torque drivers.
3. **Tweezers**
   To be used for removing and installing parts and wires.
4. **Chip IC replacement jig**
   To be used for adjustment of the camera system.
5. **Jig connector cable**
   Connected to CN105 of the main board and used for electrical adjustment, etc.
6. **Communication Cable**
   Connect the Communication cable between the PC cable and Jig connector cable when performing a PC adjustment.
7. **PC cable**
   To be used to connect the VideoMovie and a personal computer with each other when a personal computer is used for adjustment.
8. **Service support system**
   To be used for adjustment with a personal computer.
9. **Alignment tape**
   To be used for check and adjustment of interchangeability of the mechanism.
10. **INF adjustment lens**
    To be used for adjustment of the camera system.
11. **INF adjustment lens holder**
    To be used together with the camera stand for operating the VideoMovie in the stripped-down condition such as the status without the exterior parts or for using commodities that are not yet conformable to the interchangeable ring.
12. **Camera stand**
    To be used together with the INF adjustment lens holder.
13. **Light box assembly**
    To be used for adjustment of the camera system.
14. **Gray scale chart (for Light box assembly)**
    To be used for adjustment of the camera system.
15. **Color bar chart (for Light box assembly)**
    To be used for adjustment of the camera system.

3.2 SETUP

1. Setup for electrical adjustment with personal computer.

   NOTE: *Remove one screw (1) first and the cover (JIG) next.*



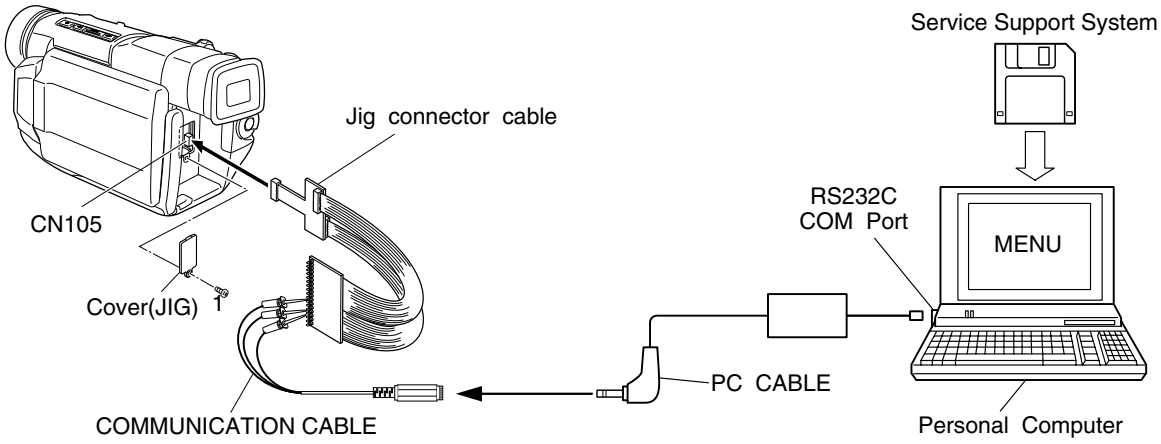


Fig. 3-2-1 Connection for Service support system

SECTION 4
CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM

Safety precautions
The Components identified by the symbol ⚠ are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.

1. Units of components on the schematic diagram

Unless otherwise specified.

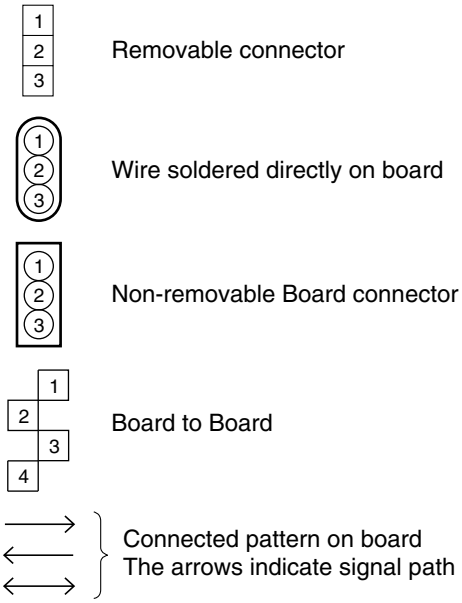
1) All resistance values are in ohm. 1/6 W, 1/8 W (refer to parts list).
   Chip resistors are 1/16 W.
   K: KΩ (1000Ω), M: MΩ (1000KΩ)
2) All capacitance values are in μF, (P: PF).
3) All inductance values are in μH, (m: mH).
4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

2. Indications of control voltage

AUX : Active at high.

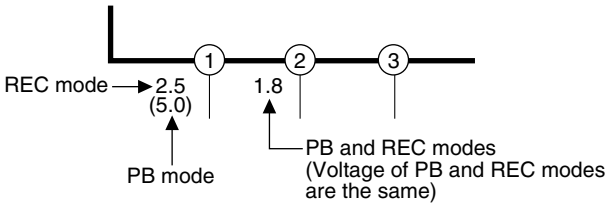
$\overline{AUX}$ or AUX(L) : Active at low.

3. Interpreting Connector indications



4. Voltage measurement

1) Regulator (DC/DC CONV) circuits
   REC : Colour bar signal.
   PB : Alignment tape (Colour bar).
   — : Unmeasurable or unnecessary to measure.
4) Indication on schematic diagram
   Voltage Indications for REC and PB mode on the schematic diagram are as shown below.

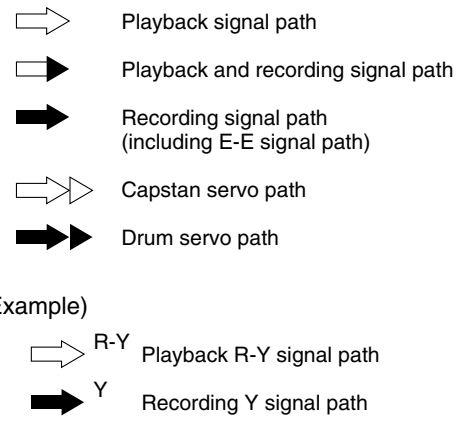


Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

5. Signal path Symbols

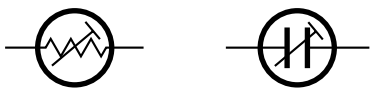
The arrows indicate the signal path as follows.

NOTE : The arrow is DVC unique object.



6. Indication of the parts for adjustments

The parts for the adjustments are surrounded with the circle as shown below.



7. Indication of the parts not mounted on the circuit board

"OPEN" is indicated by the parts not mounted on the circuit board.

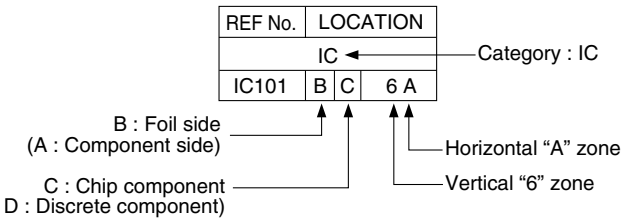
CIRCUIT BOARD NOTES

1. Foil and Component sides

1) Foil side (B side) :
   Parts on the foil side seen from foil face (pattern face) are indicated.
2) Component side (A side) :
   Parts on the component side seen from component face (parts face) indicated.

2. Parts location guides

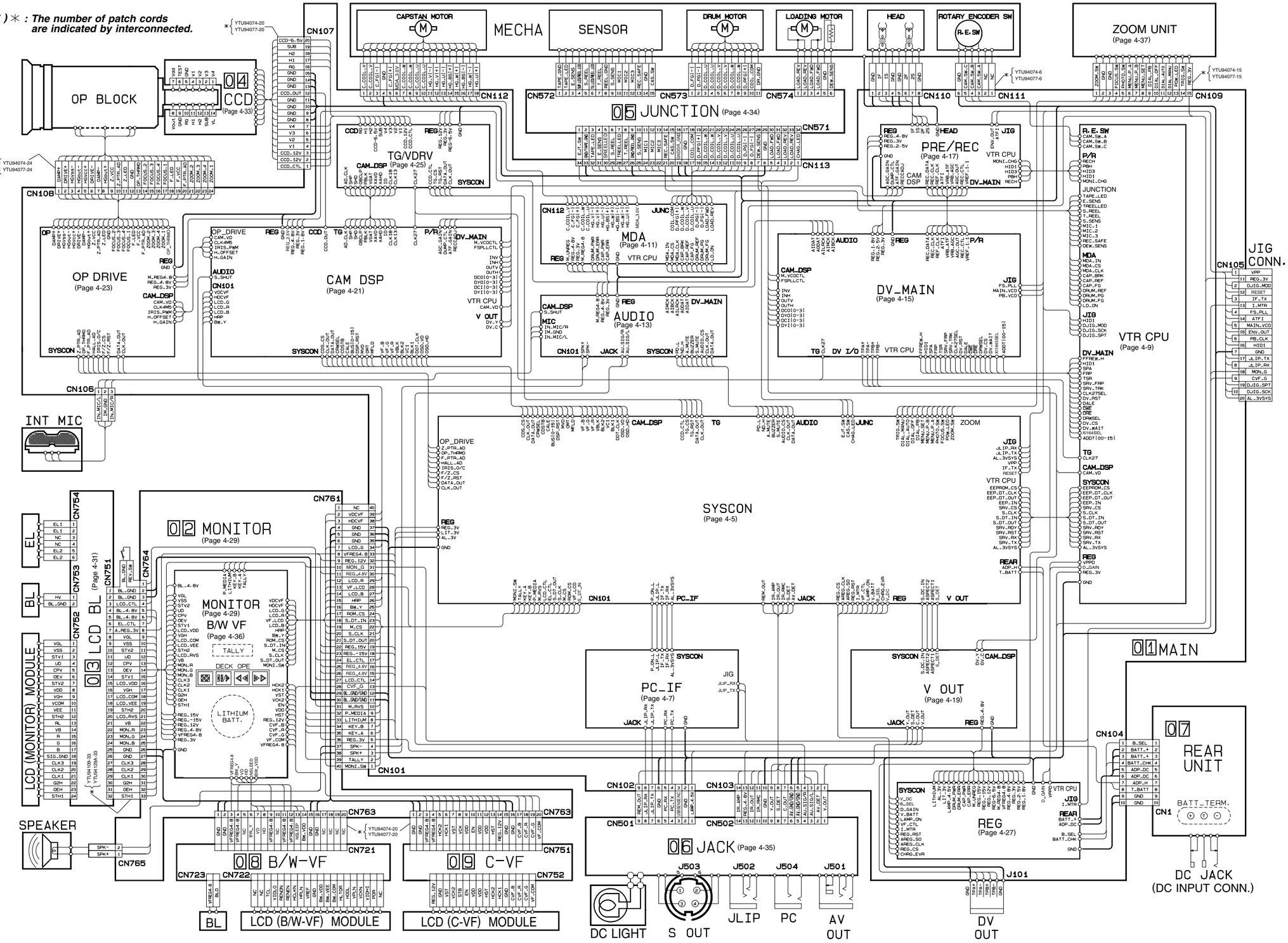
Parts location are indicated by guide scale on the circuit board.



Note: For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).

4.1 BOARD INTERCONNECTIONS

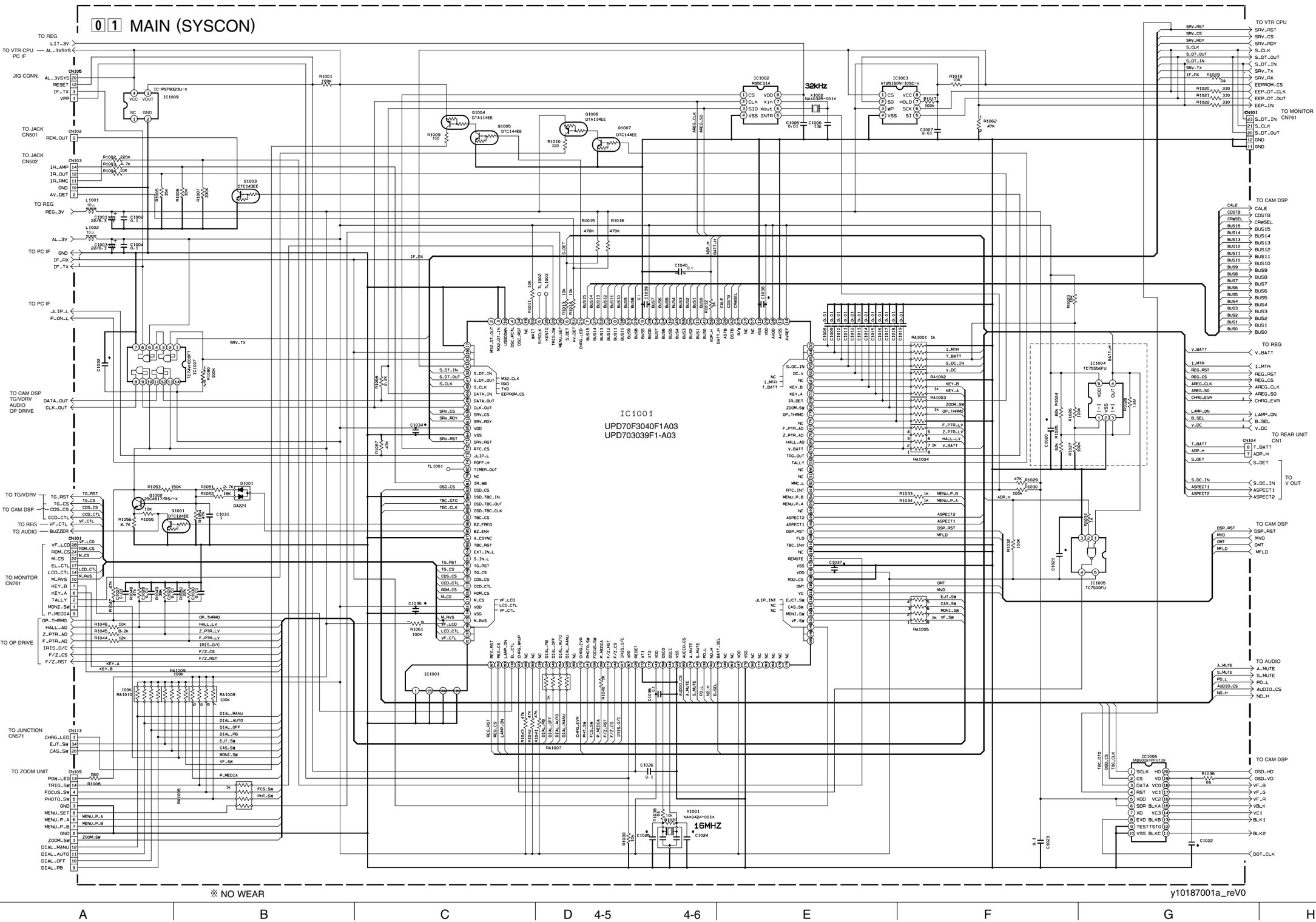
***NOTE)* ✳ : The number of patch cords are indicated by interconnected.**



y10195001a_rev0

4.2 SYSCON SCHEMATIC DIAGRAM

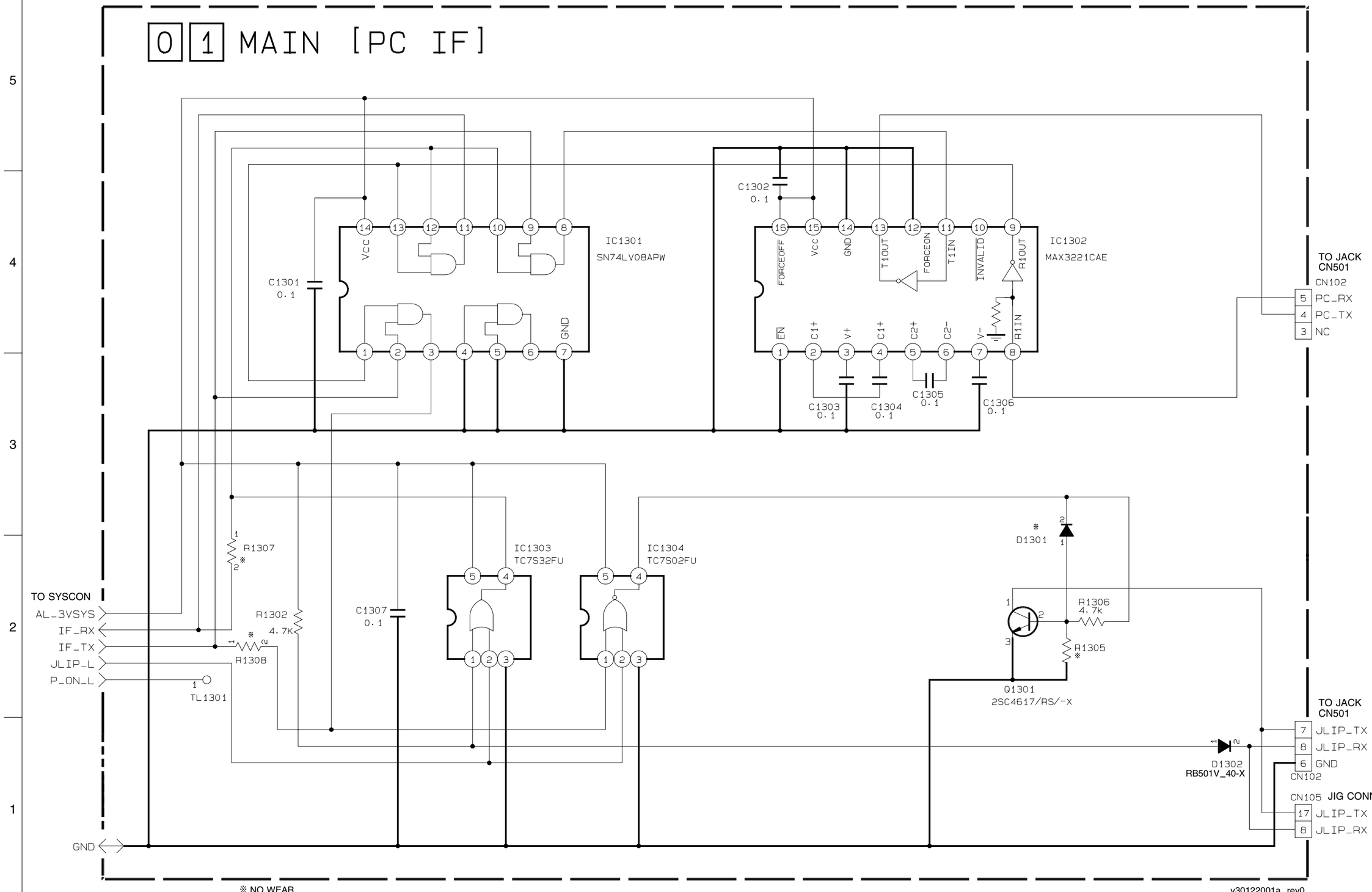
NOTES :
- *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
- *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



A B C D E F G H

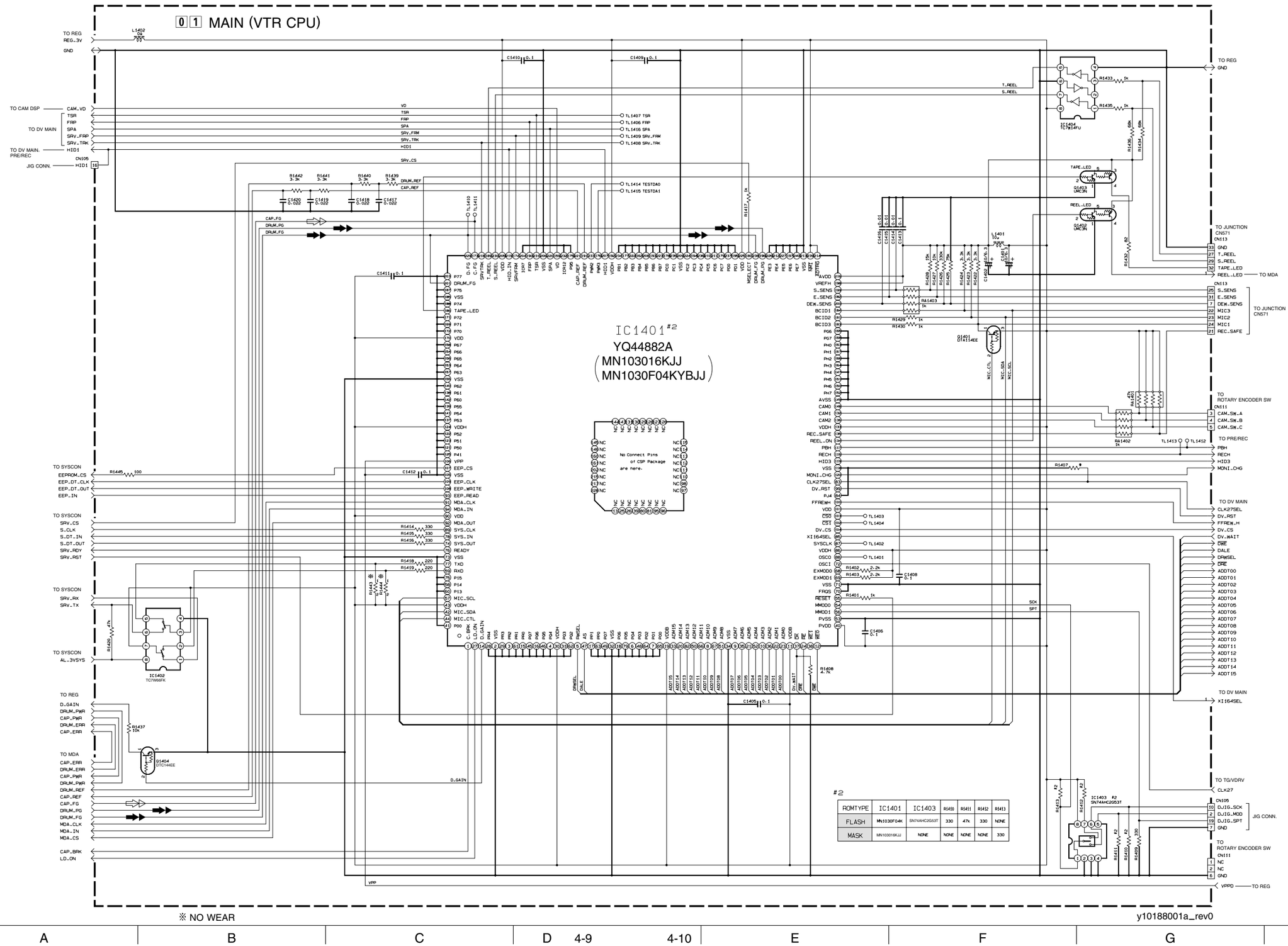
4.3 PC IF SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



4.4 VTR CPU SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*

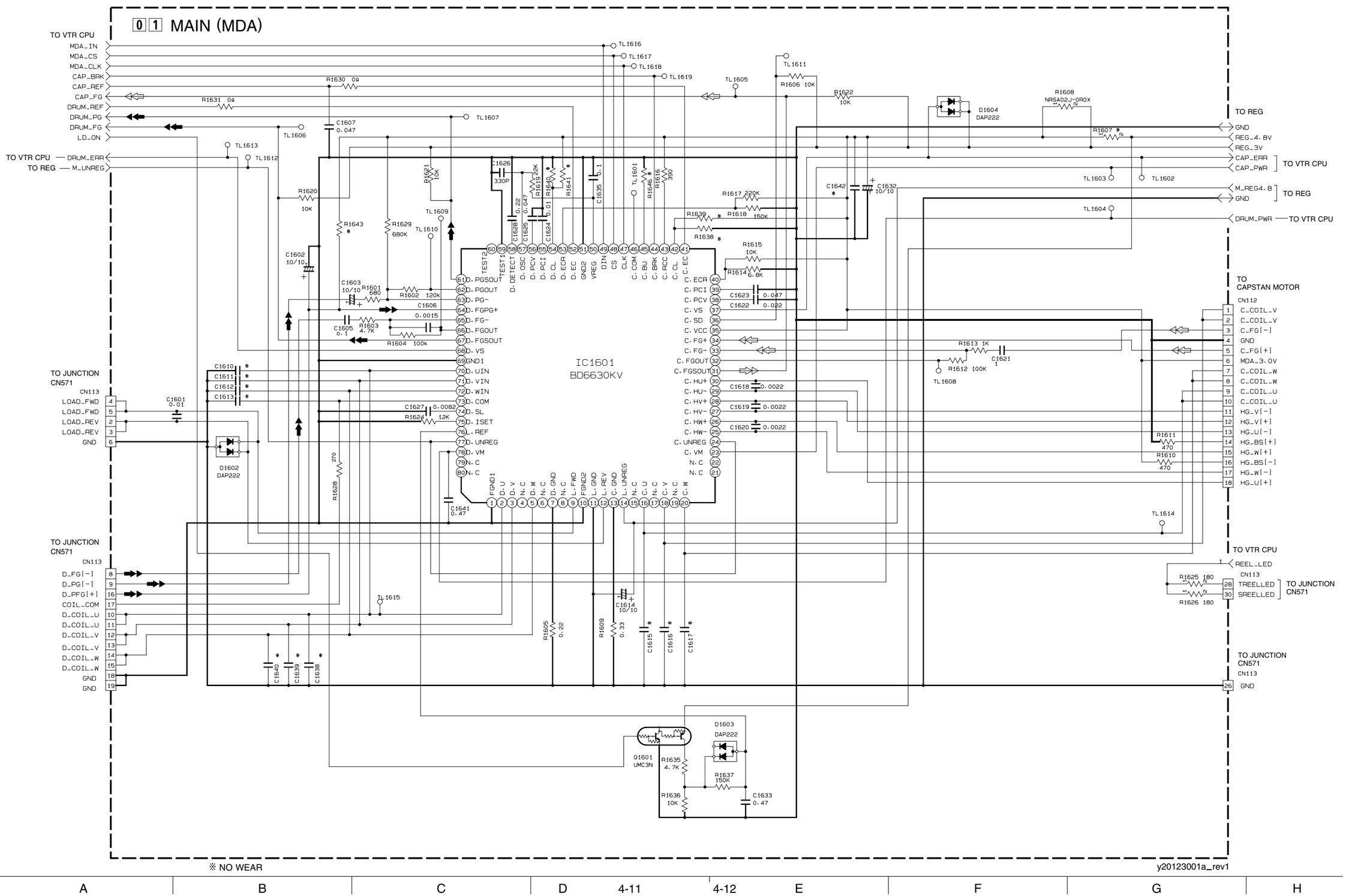


#2

ROMTYPE	IC1401	IC1403	R1410	R1411	R1412	R1413
FLASH	MN1030F04K	SN74AHC2G53T	330	47k	330	NONE
MASK	MN103016KJJ	NONE	NONE	NONE	NONE	330

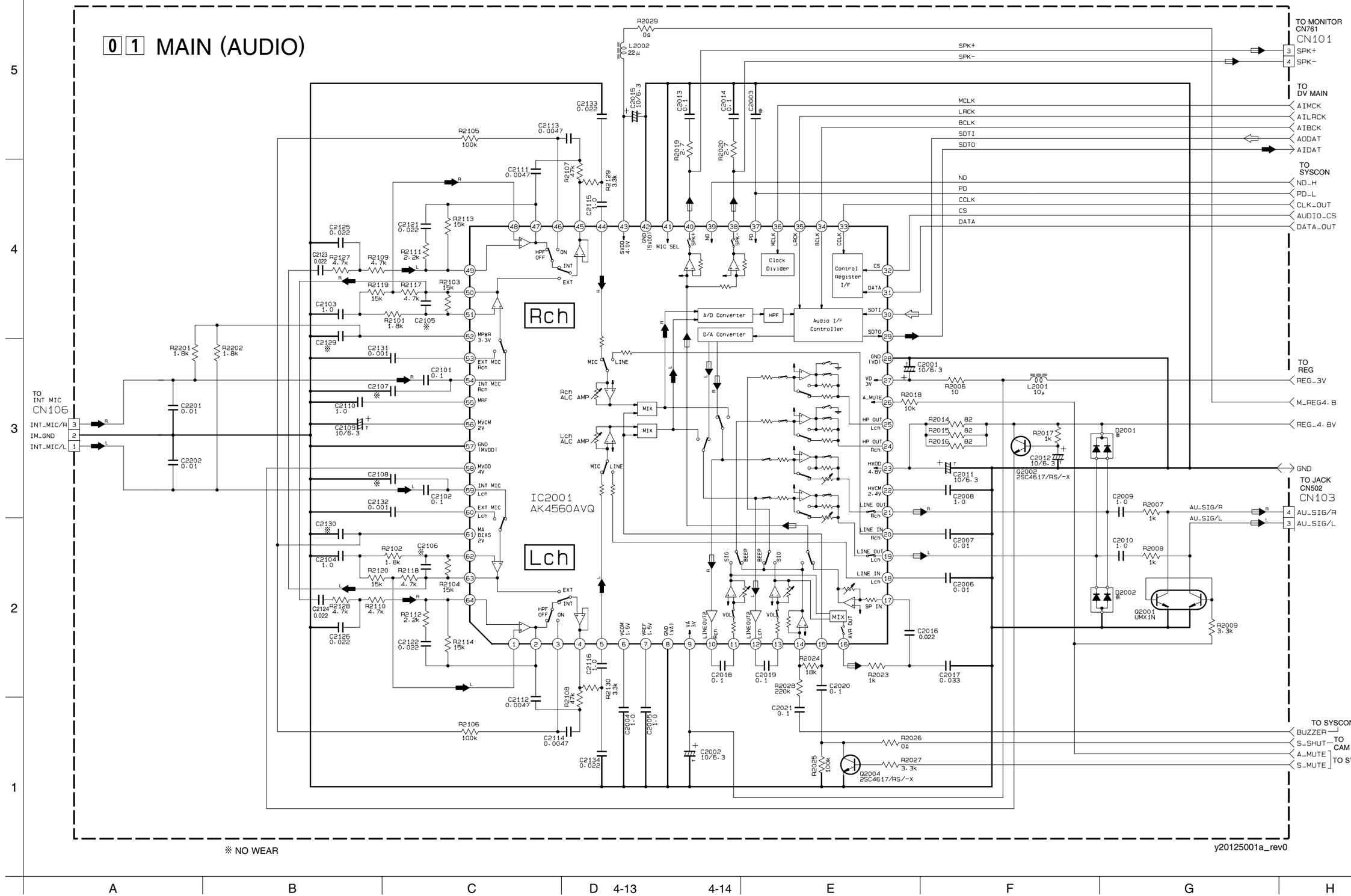
4.5 MDA SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



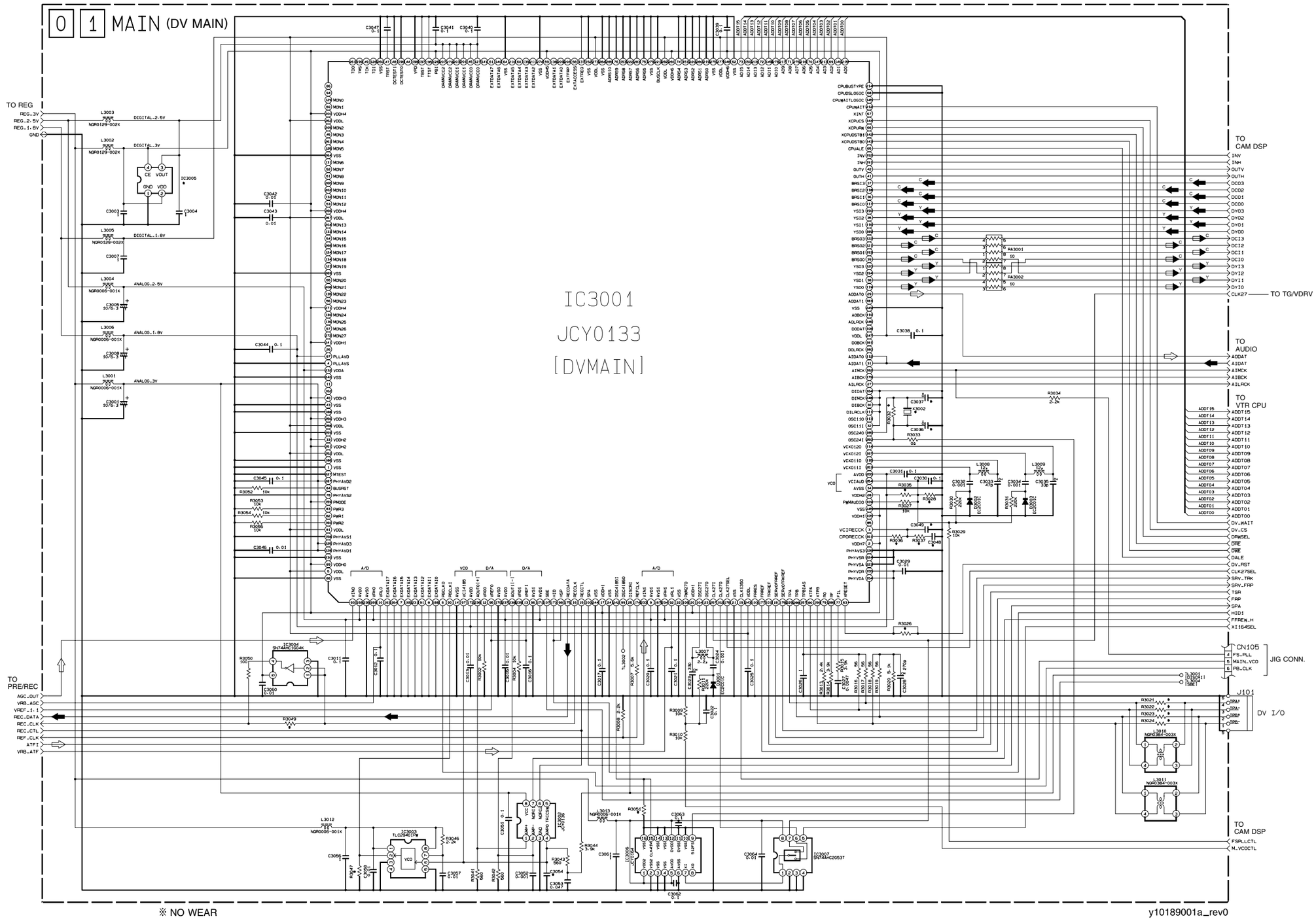
4.6 AUDIO SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



4.7 DV MAIN SCHEMATIC DIAGRAM

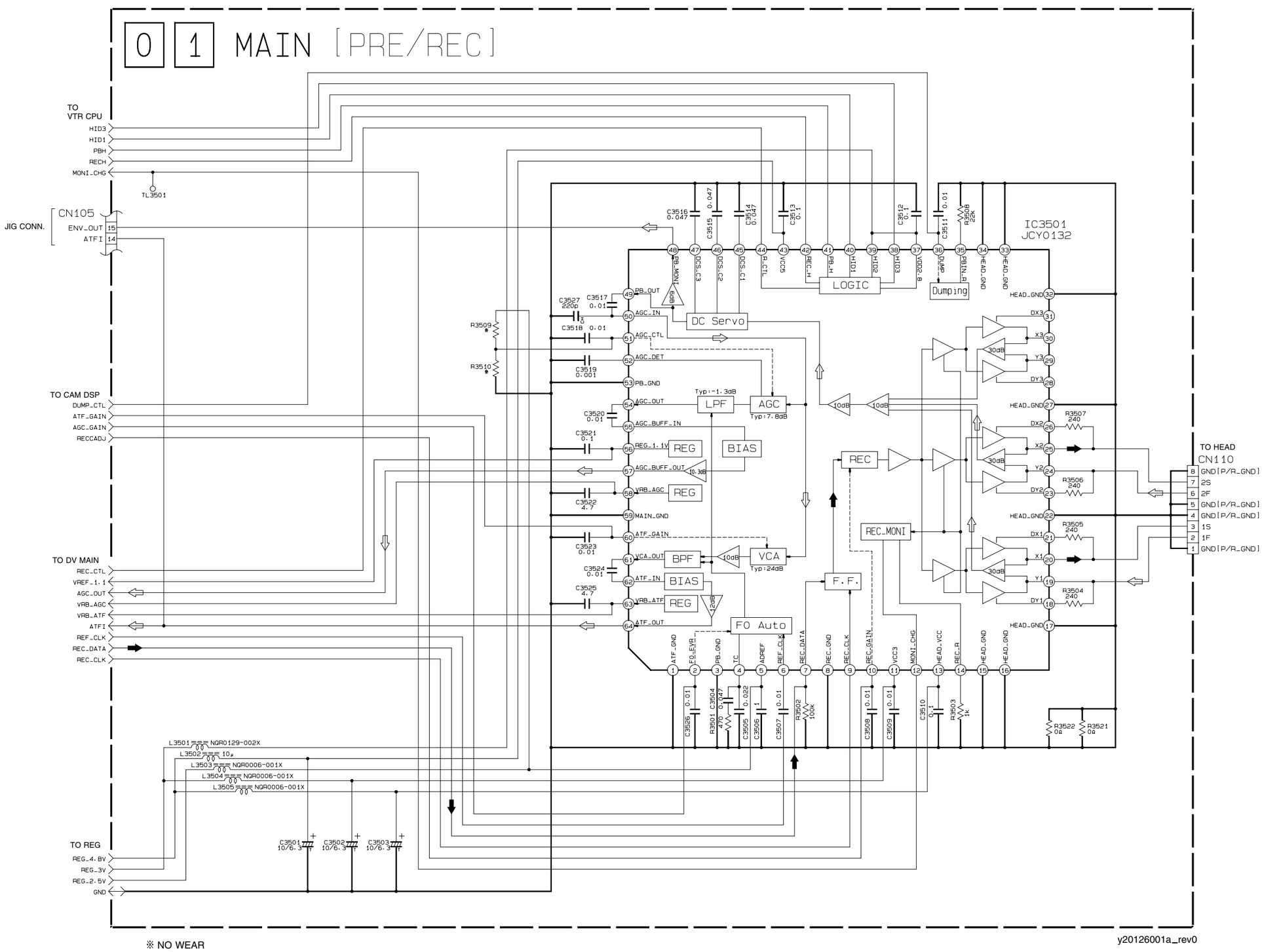
NOTES :
- *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
- *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



A	B	C	D	4-15	4-16	E	F	G	H

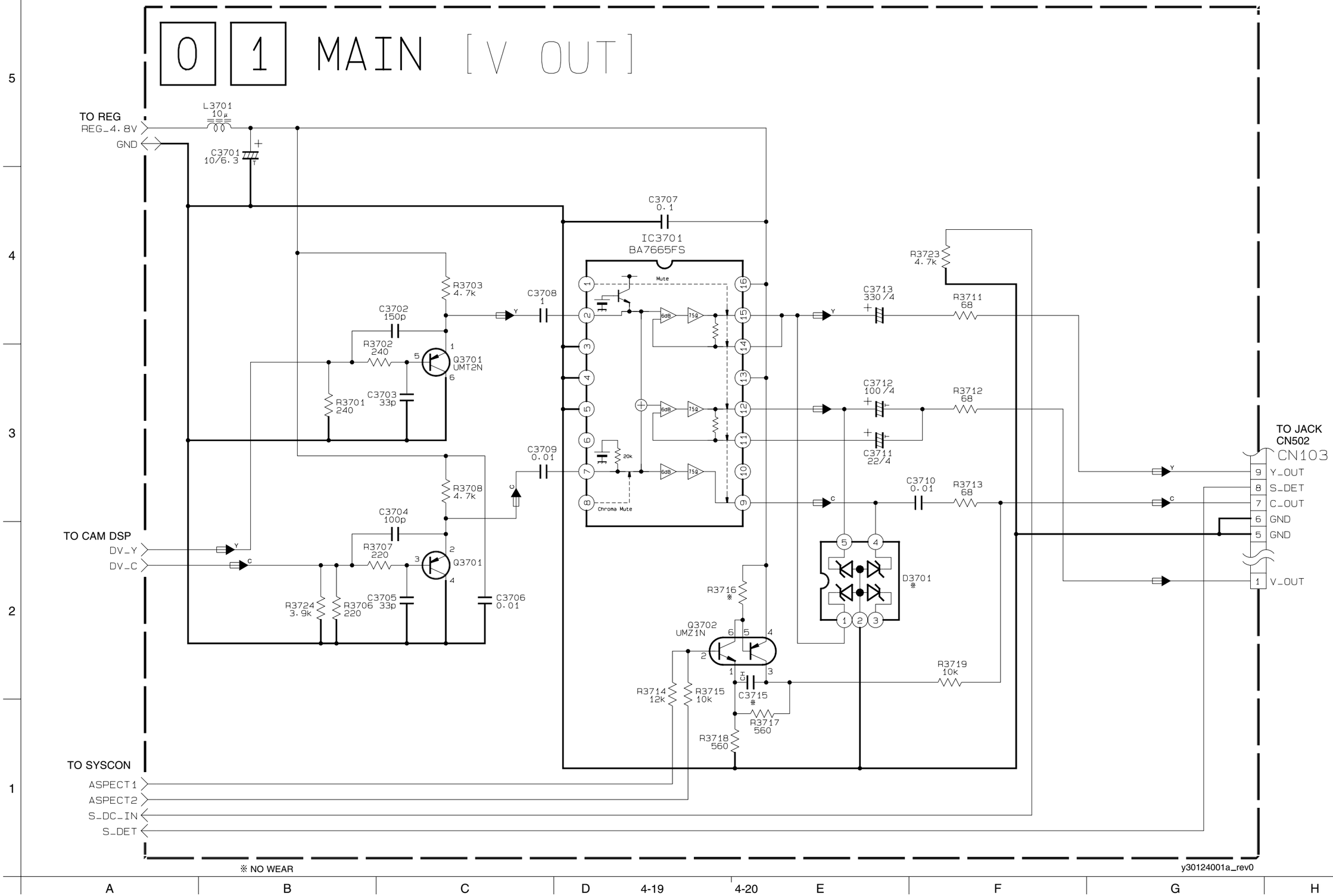
4.8 PRE/REC SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



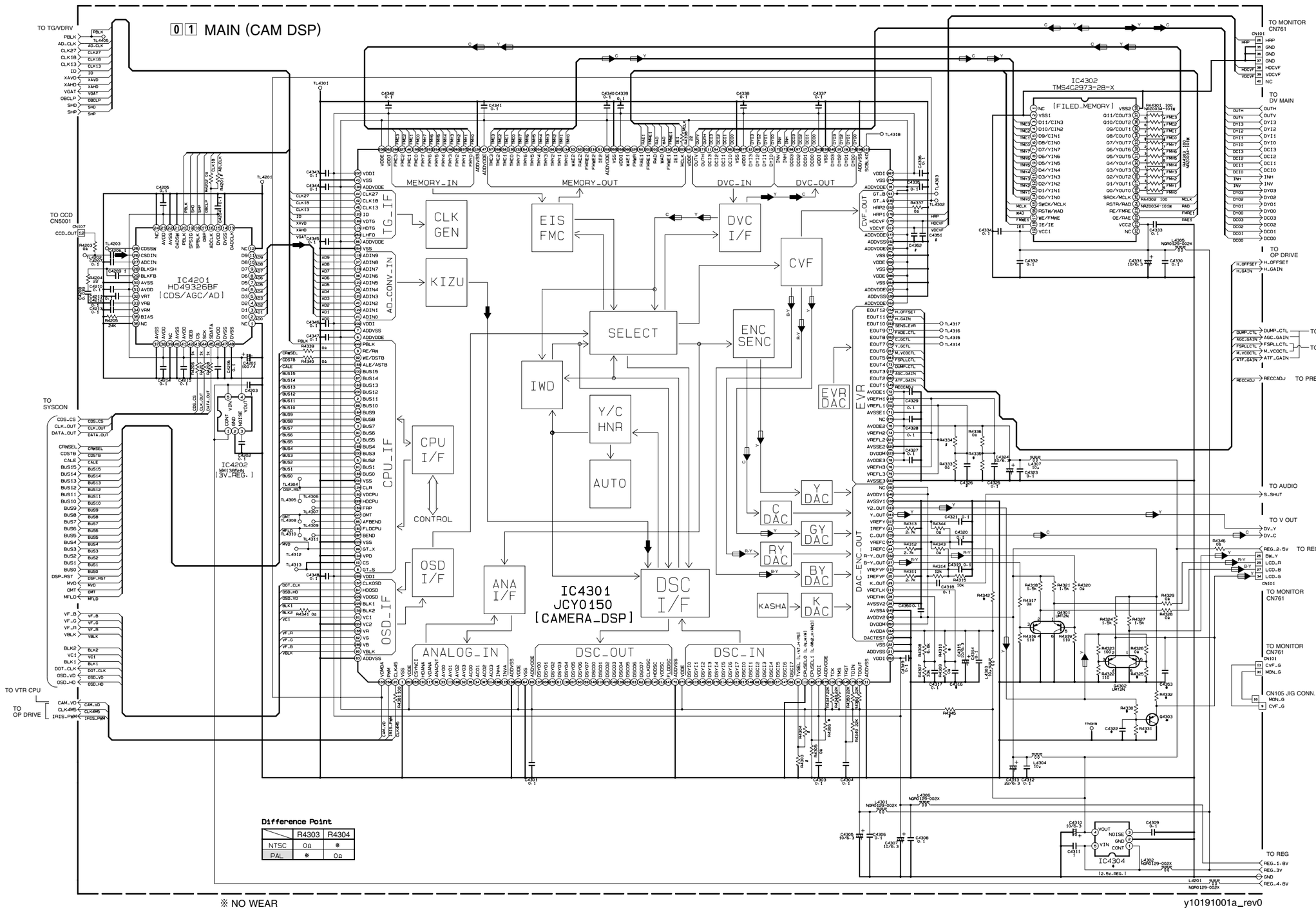
4.9 V OUT SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



4.10 CAM DSP SCHEMATIC DIAGRAM

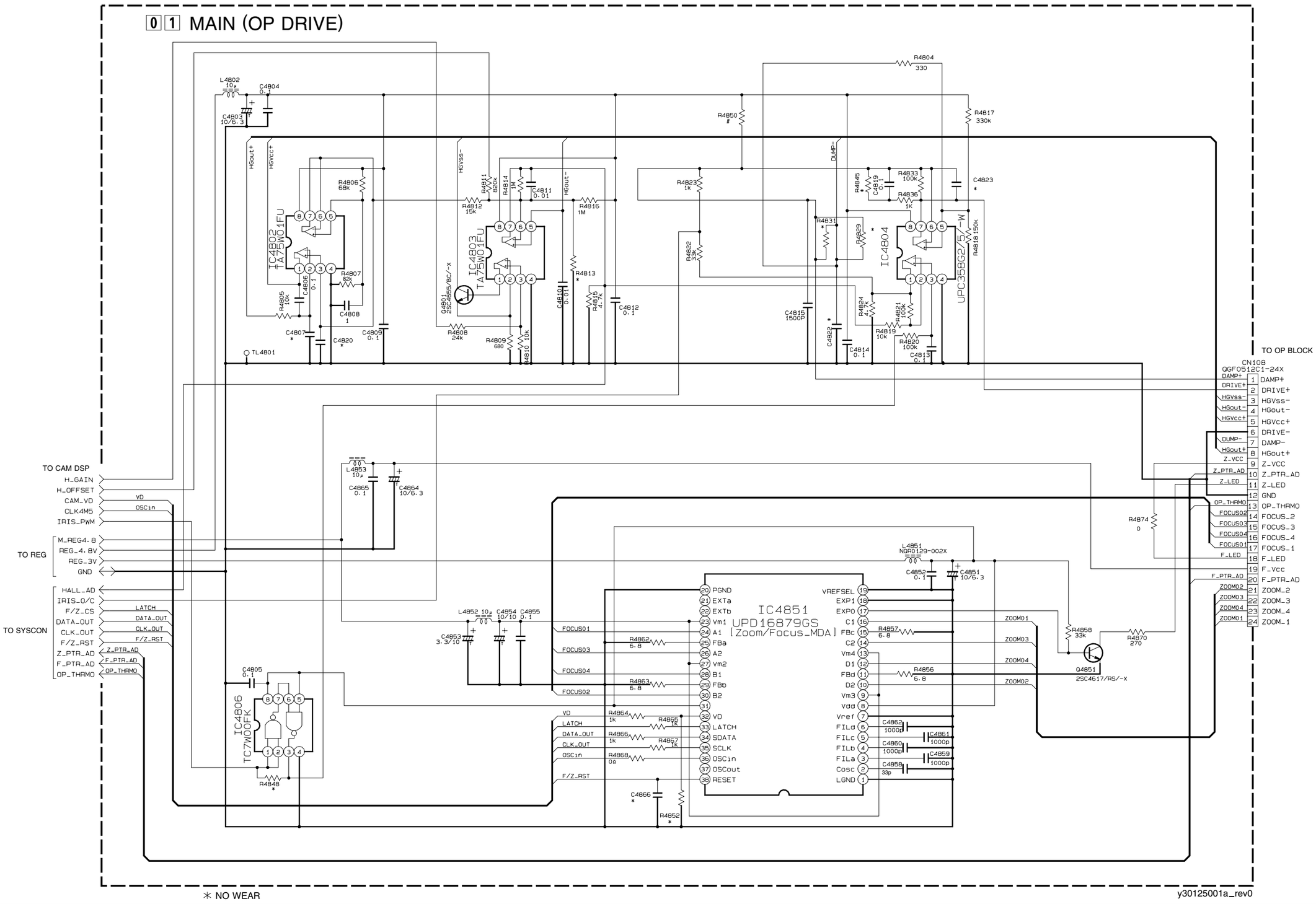
NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



	A	B	C	D	E	F	G	H
5								
4								
3								
2								
1								

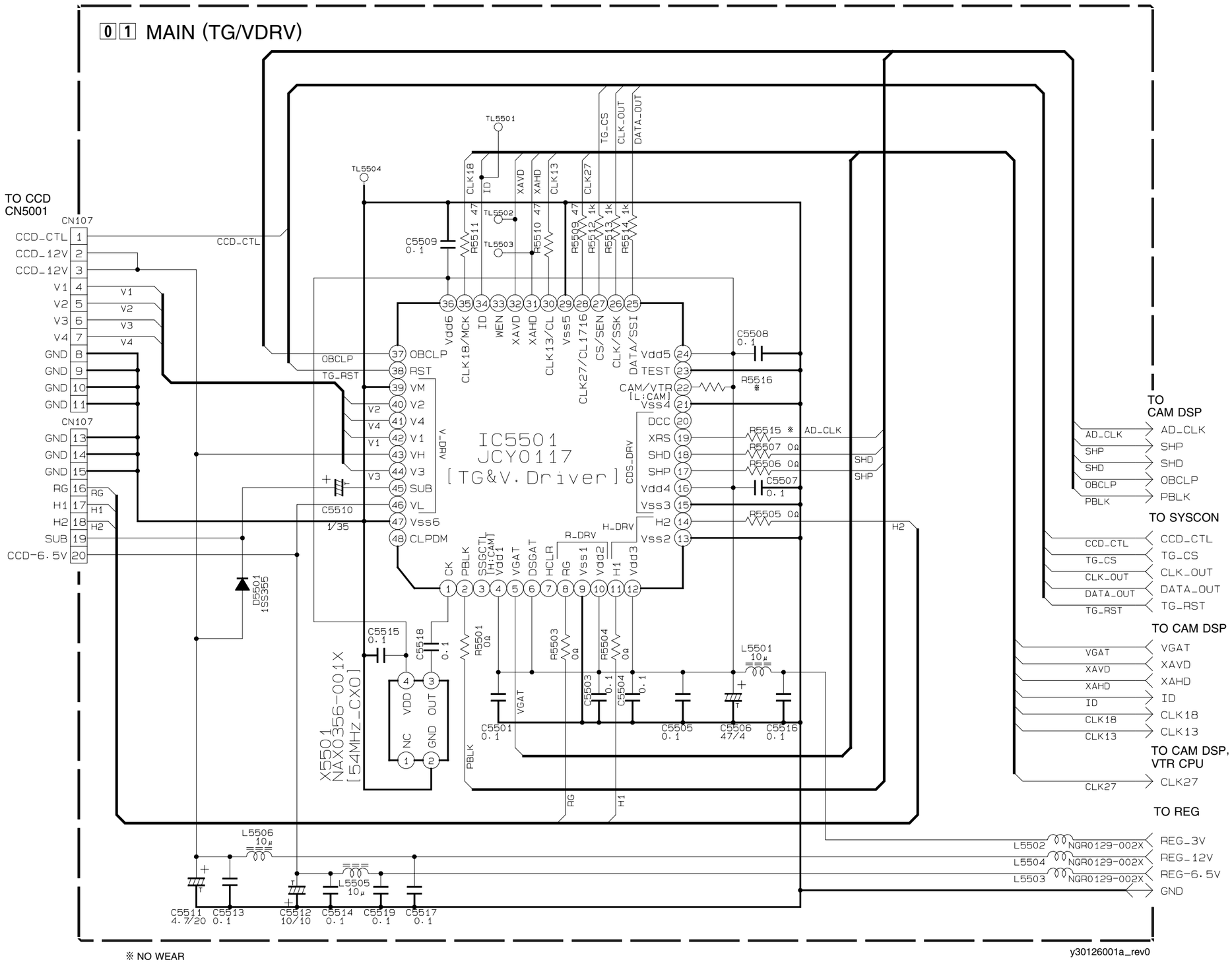
4.11 OP DRIVE SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



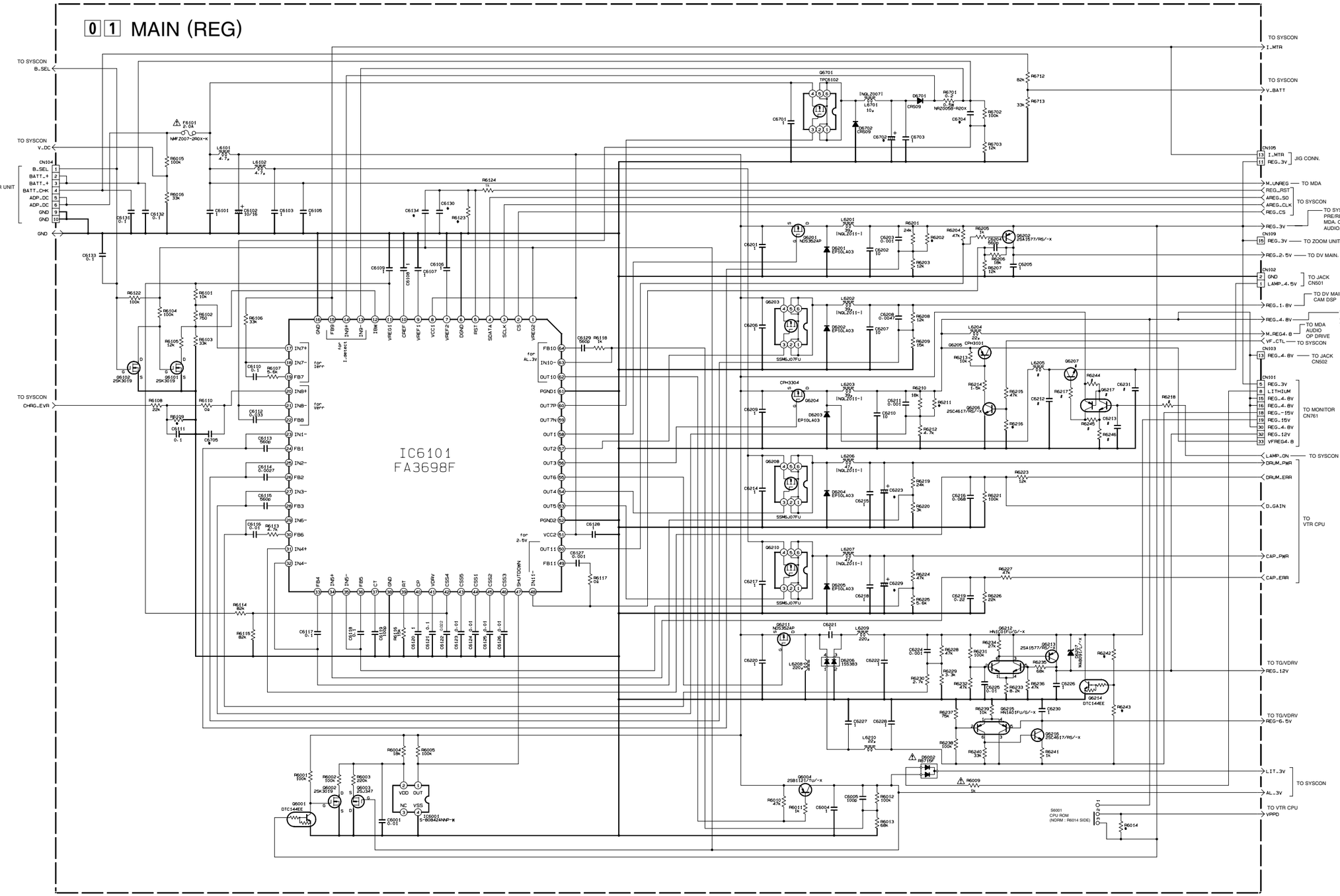
4.12 TG/VDRV SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



4.13 REG SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



#EXCHANGE PARTS LIST

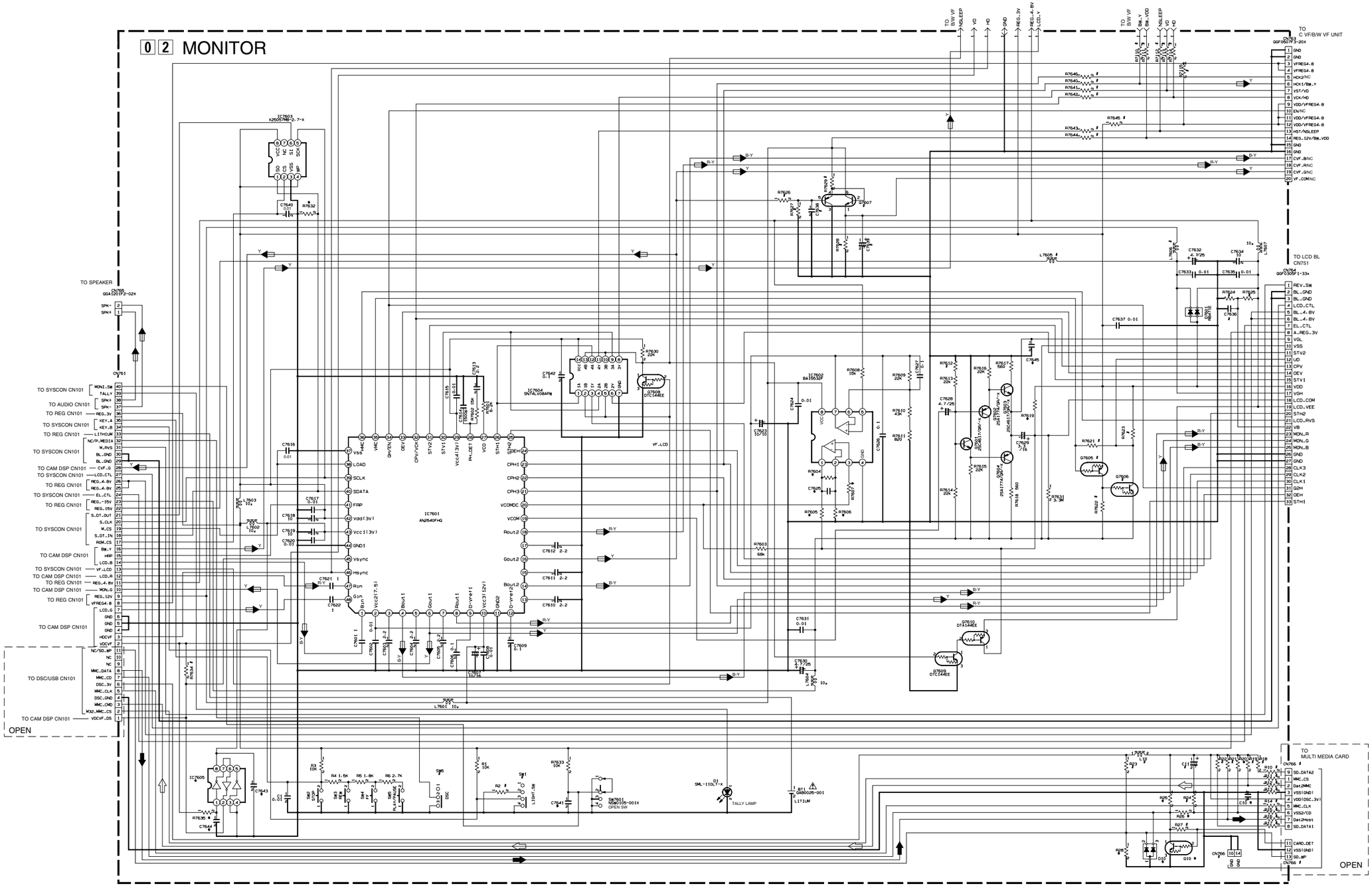
※ NO WEAR

	L6205	Q6207	Q6217	R6217	R6218	R6244	R6245	R6246	C6212	C6213	C6231
with LIGHT	10µ	2SD1621/TU/-X	UMZ1N	150	100k	1.5k	5.6k	2.2k	1	1	0.01
without LIGHT	open	open	open	open	open	open	open	open	open	open	open

y10192001a_rev0

4.14 MONITOR SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



	R7110	R7111	R7112	R7113	R7114	R7115	Q7607	R7626	R7627	R7628	R7629	R7640	R7641	R7642	R7643	R7644	R7645	R7646	C7638	C7639
CVF MODEL	●	●	●	●	●	●	UNUN	18K	330K	220K	39K	0	0	0	0	0	0	0	2.2	10/10
B/W VF MODEL	0	0	0	0	0	0	●	●	●	●	●	●	●	●	●	●	●	●	●	●

	Q7605	Q7606	L7605	L7606	R7612	R7621	R7622	R7623	R7624	R7625	C7636
2.5inch MODEL	●	●	10	●	22K	0	●	●	●	●	●
3/3.5inch MODEL	DTA144EE	DTC144EE	●	10	6.8K	●	22K	22K	22K	22K	0.1

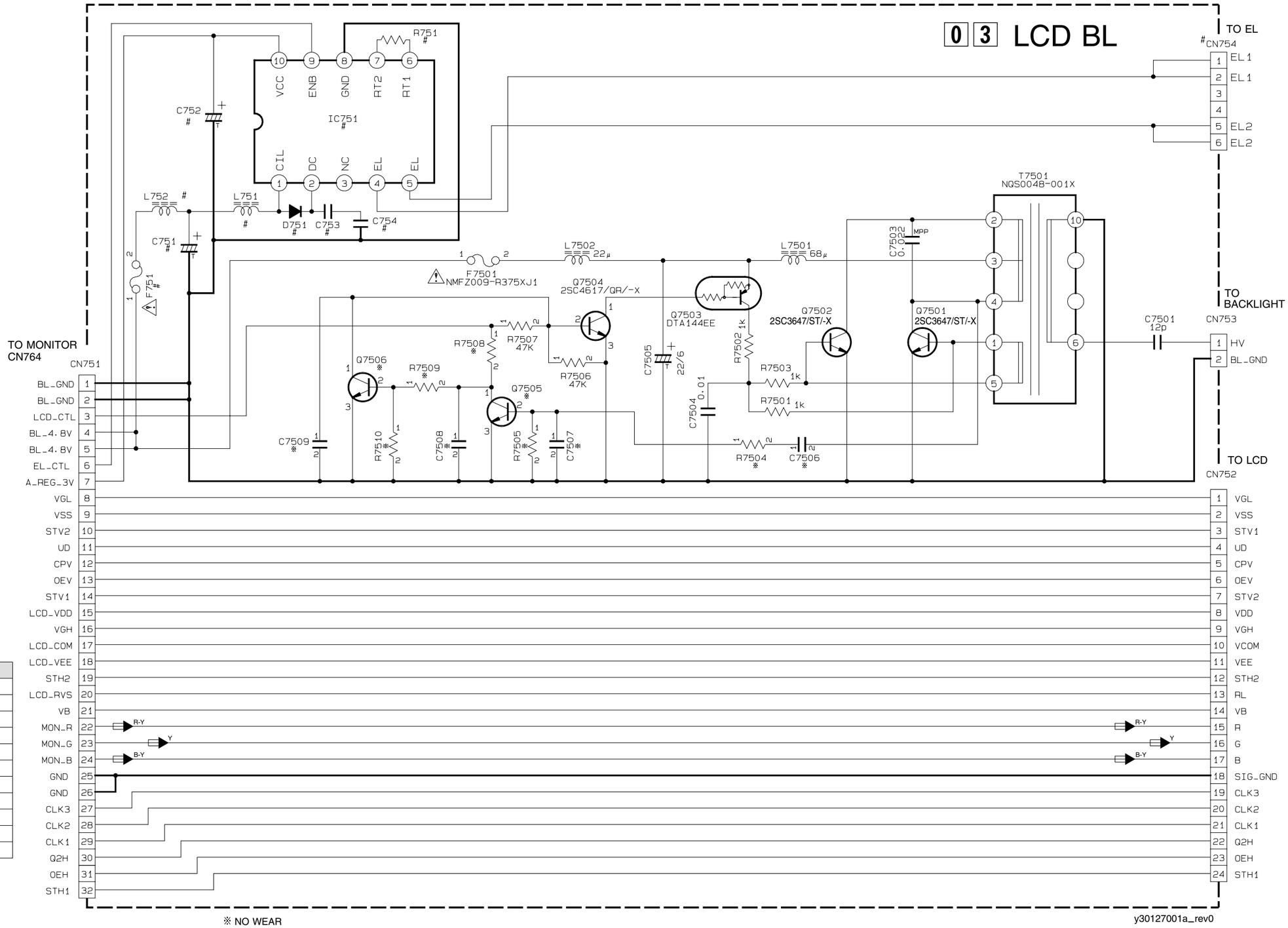
	R7634	CN761	CN766	SW6	R10	R11	R12	R13	R14	R15	R16	R17	R18	R19	R21	R22	R23	R24	R27	C11	L10
With DSC	●	GGF0509F1-50X	MJ0052-001X	KSM0105-001X	0	0	0	0	0	0	0	0	47K	10K	10K	47K	100K	0	0	33/6.3	MJ0025-002X
Without DSC	0	GGF0509F1-40X	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

	R1	R2	SW1
With LIGHT	10K	10K	KSM0105-001X
Without LIGHT	●	●	●

※ NO WEAR

4.15 LCD BL SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



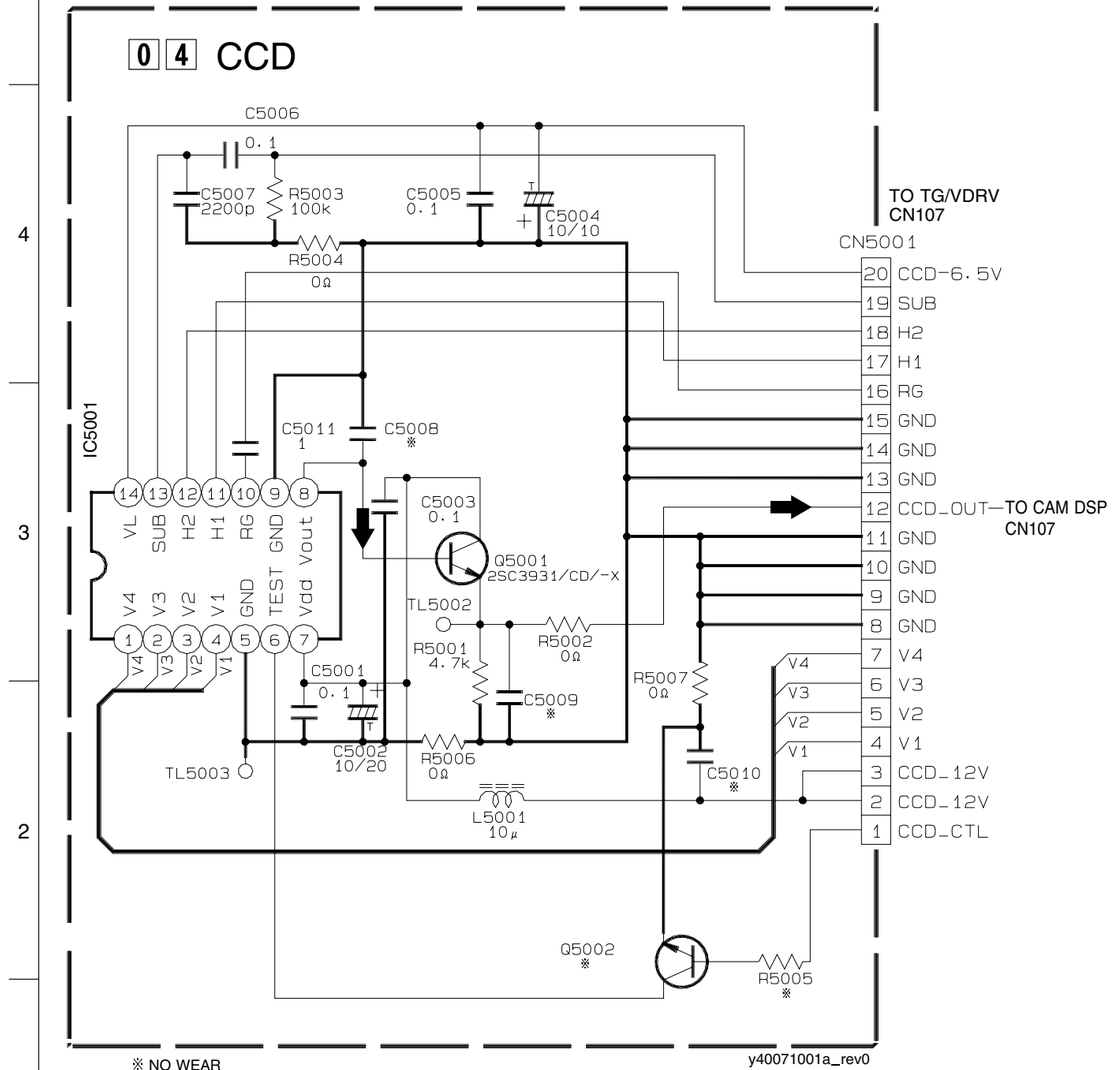
: EXCHANGE PARTS LIST

	With EL	Without EL
IC751	MIP805	※
F751	NMFZ007-R20X-K	※
D751	1SS376	※
L751	680	※
L752	10	※
R751	100K	※
C751	10/6.3	※
C752	10/6.3	※
C753	2200p	※
C754	2200p	※
CN754	QGF0505F2-06X	※

4.16 CCD SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*

● *IC5001 is incorporated in the CCD base assembly. When IC5001 needs replacement, replace the CCD base assembly in whole because it cannot be replaced alone.*

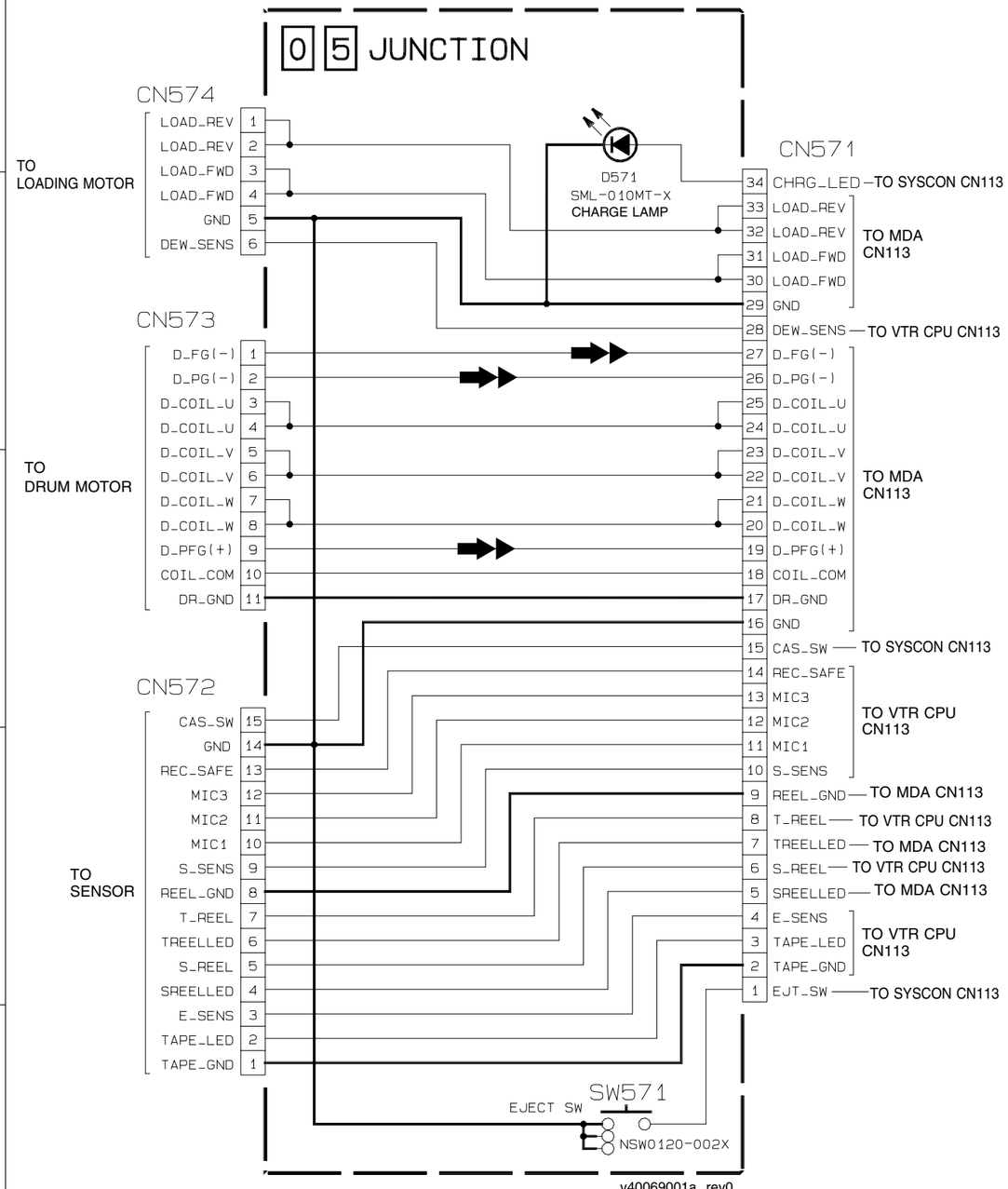


※ NO WEAR

y40071001a_rev0

4.17 JUNCTION SCHEMATIC DIAGRAM

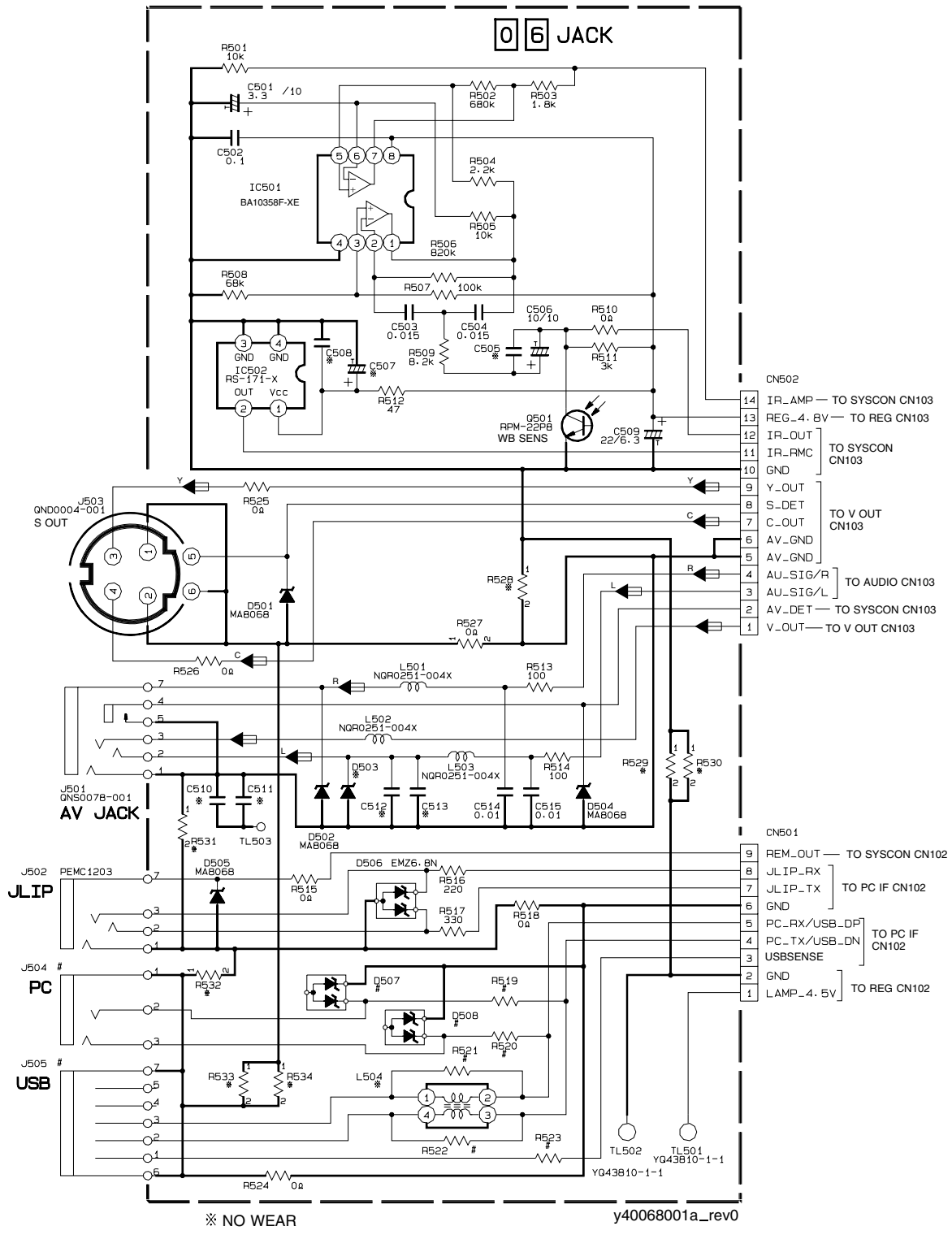
NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



y40069001a_rev0

4.18 JACK SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*

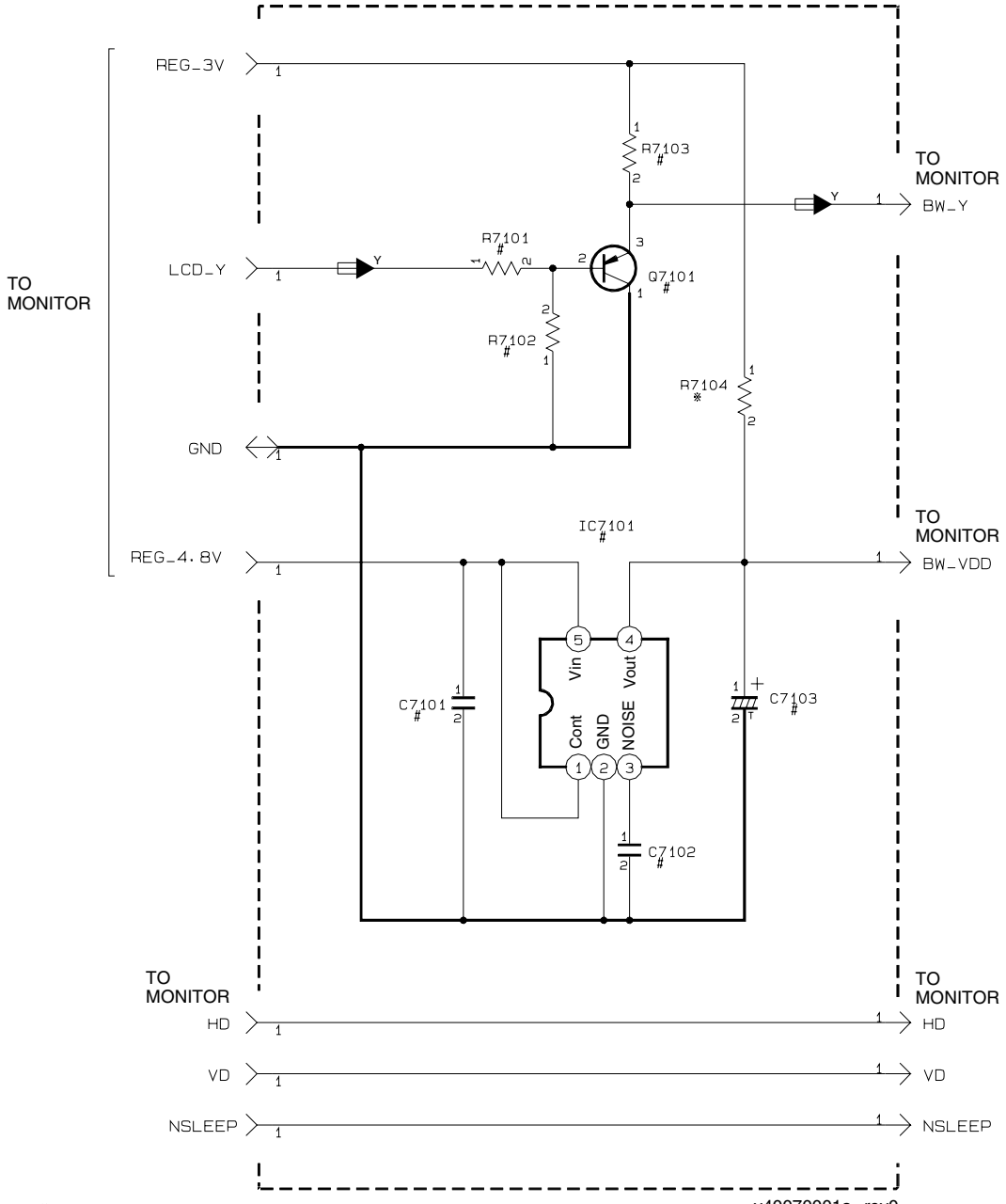


EXCHANGE PARTS LIST

	J504	J505	R519, R520	R521~R523	D507, D508
Without DSC	QNS0152-001	※	330	※	EMZ6.8N-X
With DSC	※	QNZ0497-001	※	0Ω	※

4.19 B/W VF SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



y40070001a_rev0

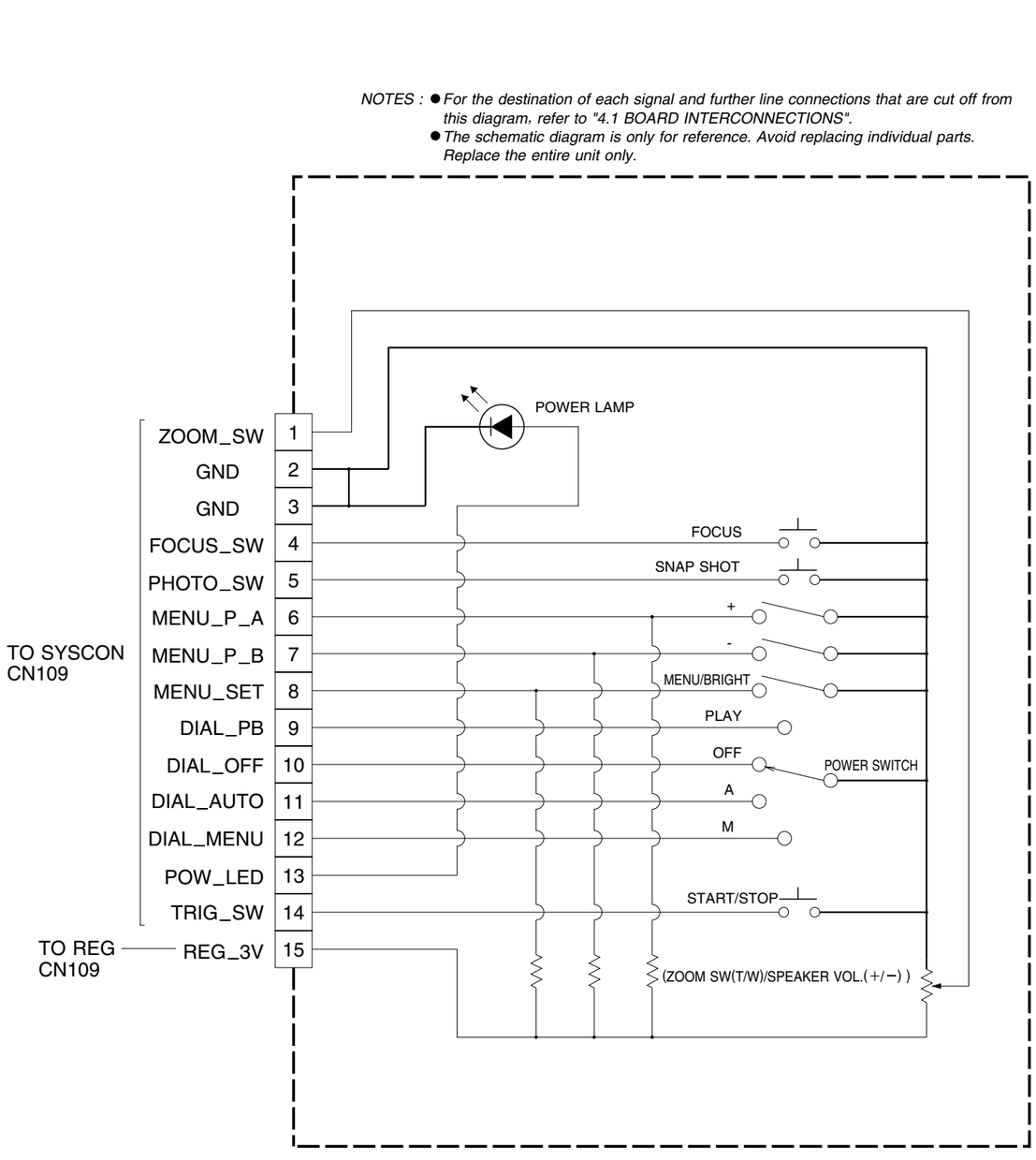
※ NO WEAR

#: EXCHANGE PARTS LIST

	CVF MODEL	B/W VF MODEL
IC7101	※	MM1385EN
Q7101	※	2SA1774/QR/-X
R7101	※	5.6K
R7102	※	5.6K
R7103	※	10K
C7101	※	0.1
C7102	※	0.01
C7103	※	4.7/6.3

4.20 ZOOM UNIT SCHEMATIC DIAGRAM

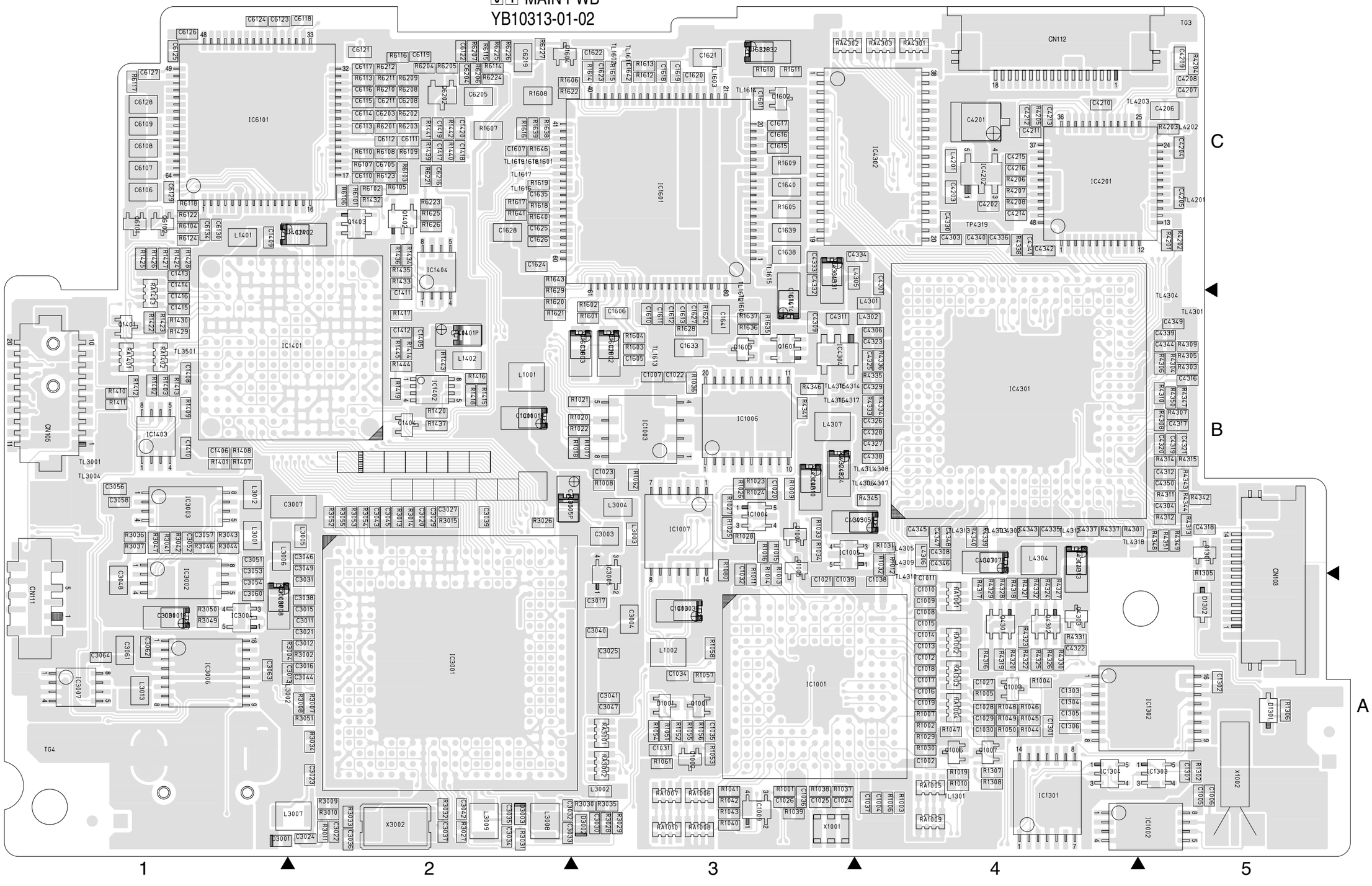
NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *The schematic diagram is only for reference. Avoid replacing individual parts. Replace the entire unit only.*



4.21 MAIN CIRCUIT BOARD

FOIL SIDE(B)

01 MAIN PWB
YB10313-01-02



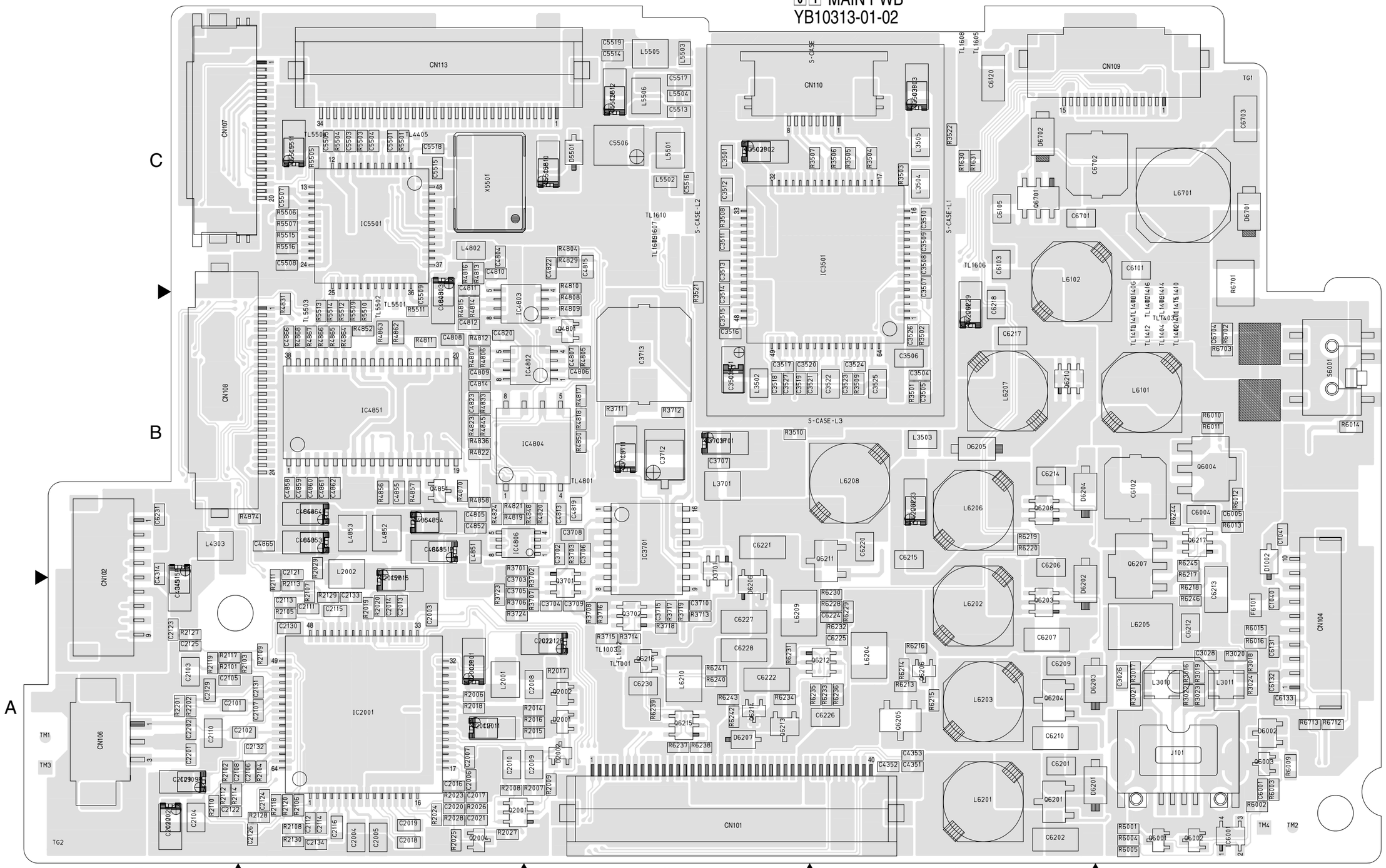
COMPONENT PARTS LOCATION GUIDE ＜MAIN＞

REF.NO.	LOCATION		
CAPACITOR			
C1001	B	C	2B
C1002	B	C	4A
C1003	B	C	3A
C1004	B	C	4A
C1005	B	C	5A
C1006	B	C	5A
C1007	B	C	3B
C1008	B	C	4A
C1009	B	C	4A
C1010	B	C	4A
C1011	B	C	4A
C1012	B	C	4A
C1013	B	C	4A
C1014	B	C	4A
C1015	B	C	4A
C1016	B	C	4A
C1017	B	C	4A
C1018	B	C	4A
C1019	B	C	4A
C1020	B	C	3B
C1021	B	C	3A
C1022	B	C	3B
C1023	B	C	3B
C1024	B	C	3A
C1025	B	C	3A
C1026	B	C	3A
C1027	B	C	4A
C1028	B	C	4A
C1029	B	C	4A
C1030	B	C	4A
C1031	B	C	3A
C1032	B	C	3A
C1034	B	C	3A
C1035	B	C	3A
C1036	B	C	3A
C1037	B	C	4A
C1038	B	C	4A
C1039	B	C	3A
C1040	A	C	1A
C1041	A	C	1B
C1301	B	C	4A
C1302	B	C	5A
C1303	B	C	4A
C1304	B	C	4A
C1305	B	C	4A
C1306	B	C	4A
C1307	B	C	5A
C1401	B	C	2B
C1402	B	C	2C
C1405	B	C	2B
C1406	B	C	1B
C1408	B	C	1B
C1409	B	C	1C
C1410	B	C	1B
C1411	B	C	2B
C1412	B	C	2B
C1413	B	C	1C
C1414	B	C	1C
C1415	B	C	1B
C1416	B	C	1B
C1417	B	C	2C
C1418	B	C	2C
C1419	B	C	2C
C1420	B	C	2C
C1601	B	C	3C
C1602	B	C	3B
C1603	B	C	3B
C1605	B	C	3B
C1606	B	C	3B
C1607	B	C	2C
C1610	B	C	3B
C1611	B	C	3B
C1612	B	C	3B
C1613	B	C	3B
C1614	B	C	3B
C1615	B	C	3C
C1616	B	C	3C
C1617	B	C	3C
C1618	B	C	3C
C1619	B	C	3C
C1620	B	C	3C
C1621	B	C	3C
C1622	B	C	3C
C1623	B	C	3C
C1624	B	C	2C
C1625	B	C	2C
C1626	B	C	2C
C1627	B	C	3B
C1628	B	C	2C
C1632	B	C	3C
C1633	B	C	3B
C1635	B	C	2C
C1638	B	C	3C
C1639	B	C	3C
C1640	B	C	3C
C1641	B	C	3B
C1642	B	C	3C
C2001	A	C	4A
C2002	A	C	5A
C2003	A	C	4A
C2004	A	C	4A
C2005	A	C	4A
C2006	A	C	4A
C2007	A	C	4A
C2008	A	C	3A
C2009	A	C	3A
C2010	A	C	4A
C2011	A	C	4A
C2012	A	C	3A
C2013	A	C	4A
C2014	A	C	4A
C2015	A	C	4A
C2016	A	C	4A
C2017	A	C	4A
C2018	A	C	4A
C2019	A	C	4A
C2020	A	C	4A
C2021	A	C	4A
C2101	A	C	5A
C2102	A	C	5A
C2103	A	C	5A
C2104	A	C	5A
C2105	A	C	5A
C2106	A	C	4A
C2107	A	C	4A
C2108	A	C	5A
C2109	A	C	5A
C2110	A	C	5A
C2111	A	C	4A
C2112	A	C	4A
C2113	A	C	4A
C2114	A	C	4A
C2115	A	C	4A
C2116	A	C	4A
C2121	A	C	4B
C2122	A	C	5A
C2123	A	C	5A
C2124	A	C	4A
C2125	A	C	5A
C2126	A	C	4A
C2129	A	C	5A
C2130	A	C	4A
C2131	A	C	4A
C2132	A	C	4A
C2133	A	C	4A
C2134	A	C	4A
C2201	A	C	5A
C2202	A	C	5A
C3001	B	C	1A
C3003	B	C	3B
C3004	B	C	3A
C3005	B	C	3B
C3007	B	C	2B
C3008	B	C	1A
C3011	B	C	2A
C3012	B	C	2A
C3013	B	C	2A
C3015	B	C	2A
C3016	B	C	2A
C3017	B	C	3A
C3020	B	C	2B
C3021	B	C	2A
C3022	B	C	2A
C3023	B	C	2A
C3024	B	C	2A
C3025	B	C	3A
C3026	A	C	1A
C3027	B	C	2B
C3028	A	C	1A
C3029	B	C	2B
C3030	B	C	3A
C3031	B	C	2A
C3032	B	C	3A
C3033	B	C	3A
C3034	B	C	2A
C3035	B	C	2A
C3036	B	C	2A
C3037	B	C	2A
C3038	B	C	2A
C3039	B	C	2B
C3040	B	C	3A
C3041	B	C	3A
C3042	B	C	2A
C3043	B	C	2B
C3044	B	C	2A
C3045	B	C	2B
C3046	B	C	2B
C3047	B	C	3A
C3048	B	C	1A
C3049	B	C	2B
C3051	B	C	1B
C3052	B	C	1B
C3053	B	C	1B
C3054	B	C	1A
C3056	B	C	1B
C3057	B	C	1B
C3058	B	C	1B
C3060	B	C	1A
C3061	B	C	1A
C3062	B	C	1A
C3063	B	C	1A
C3064	B	C	1A
C3501	A	C	3B
C3502	A	C	3C
C3503	A	C	2C
C3504	A	C	2B
C3505	A	C	2B
C3506	A	C	2B
C3507	A	C	2C
C3508	A	C	2C
C3509	A	C	2C
C3510	A	C	2C
C3511	A	C	3C
C3512	A	C	3C
C3513	A	C	3C
C3514	A	C	3B
C3515	A	C	3B
C3516	A	C	3B
C3517	A	C	3B
C3518	A	C	3B
C3519	A	C	3B
C3520	A	C	3B
C3521	A	C	3B
C3522	A	C	2B
C3523	A	C	2B
C3524	A	C	2B
C3525	A	C	2B
C3526	A	C	2B
C3527	A	C	3B
C3701	A	C	3B
C3702	A	C	3B
C3703	A	C	4A
C3704	A	C	3A
C3705	A	C	4A
C3706	A	C	3B
C3707	A	C	3B
C3708	A	C	3B
C3709	A	C	3A
C3710	A	C	3A
C3711	A	C	3B
C3712	A	C	3B
C3713	A	C	3B
C3715	A	C	3A
C4201	B	C	4C
C4202	B	C	4C
C4203	B	C	4C
C4204	B	C	5C
C4205	B	C	5C
C4206	B	C	5C
C4207	B	C	5C
C4208	B	C	5C
C4209	B	C	5C
C4210	B	C	4C
C4211	B	C	4C
C4212	B	C	4C
C4213	B	C	4C
C4214	B	C	4C
C4215	B	C	4C
C4216	B	C	4C
C4301	B	C	4C
C4303	B	C	4C
C4304	B	C	5B
C4305	B	C	4B
C4306	B	C	4B
C4307	B	C	4B
C4308	B	C	4B
C4309	B	C	3B
C4310	B	C	3B
C4311	B	C	3B
C4312	B	C	5B
C4313	B	C	4B
C4314	A	C	5B
C4315	A	C	5A
C4316	B	C	5B
C4317	B	C	5B
C4318	B	C	5B
C4319	B	C	5B
C4320	B	C	5B
C4321	B	C	5B
C4322	B	C	4A
C4323	B	C	4B
C4324	B	C	3B
C4325	B	C	4B
C4326	B	C	4B
C4327	B	C	4B
C4328	B	C	4B
C4329	B	C	4B
C4330	B	C	4C
C4331	B	C	3C
C4332	B	C	3C
C4333	B	C	3C
C4334	B	C	4C
C4335	B	C	4B
C4336	B	C	4C
C4337	B	C	4B
C4338	B	C	4B
C4339	B	C	5B
C4340	B	C	4C
C4341	B	C	4C
C4342	B	C	4C
C4343	B	C	4B
C4344	B	C	5B
C4345	B	C	4B
C4346	B	C	4B
C4347	B	C	4B
C4348	B	C	4B
C4349	B	C	5B
C4350	B	C	5B
C4351	A	C	2A
C4352	A	C	2A
C4353	A	C	2A
C4803	A	C	4B
C4804	A	C	4C
C4805	A	C	4B
C4806	A	C	3B
C4807	A	C	3B
C4808	A	C	4B
C4809	A	C	4B
C4810	A	C	4C
C4811	A	C	4C
C4812	A	C	4B
C4813	A	C	3B
C4814	A	C	4B
C4815	A	C	3C
C4819	A	C	3B
C4820	A	C	4B
C4822	A	C	3C
C4823	A	C	4B
C4851	A	C	4B
C4852	A	C	4B
C4853	A	C	4B
C4854	A	C	4B
C4855	A	C	4B
C4858	A	C	4B
C4859	A	C	4B
C4860	A	C	4B
C4861	A	C	4B
C4862	A	C	4B
C4864	A	C	4B
C4865	A	C	4B
C4866	A	C	4B
C5501	A	C	4C
C5503	A	C	4C
C5504	A	C	4C
C5505	A	C	4C
C5506	A	C	3C
C5507	A	C	4C
C5508	A	C	4C
C5509	A	C	4B
C5510	A	C	3C
C5511	A	C	4C
C5512	A	C	3C
C5513	A	C	3C
C5514	A	C	3C
C5515	A	C	4C
C5516	A	C	3C
C5517	A	C	3C
C5518	A	C	4C
C5519	A	C	3C
C6001	A	C	1A
C6004	A	C	1B
C6005	A	C	1B
C6101	A	C	1C
C6102	A	C	1B
C6103	A	C	2C
C6105	A	C	2C
C6106	B	C	1C
C6107	B	C	1C
C6108	B	C	1C
C6109	B	C	1C
C6110	B	C	2C
C6111	B	C	2C
C6112	B	C	2C
C6113	B	C	2C
C6114	B	C	2C
C6115	B	C	2C
C6116	B	C	2C
C6117	B	C	2C
C6118	B	C	2C
C6119	B	C	2C
C6120	A	C	2C
C6121	B	C	2C
C6122	B	C	2C
C6123	B	C	1C
C6124	B	C	1C
C6125	B	C	1C
C6126	B	C	1C
C6127	B	C	1C
C6128	B	C	1C
C6129	B	C	1C
C6130	B	C	1C
C6131	A	C	1A
C6132	A	C	1A
C6133	A	C	1A
C6134	B	C	1C
C6201	A	C	2A
C6202	A	C	2A
C6203	B	C	2C
C6204	B	C	2C
C6205	B	C	2C
C6206	A	C	2B
C6207	A	C	2A
C6208	B	C	2C
C6209	A	C	2A
C6210	A	C	2A
C6211	B	C	2C
C6212	A	C	1A
C6213	A	C	1A
C6214	A	C	2B
C6215	A	C	2B
C6216	B	C	2C
C6217	A	C	2B
C6218	A	C	2B
C6219	B	C	2C
C6220	A	C	2B
C6221	A	C	3B
C6222	A	C	3A
C6223	A	C	2B
C6224	A	C	2A
C6225	A	C	2A
C6226	A	C	2A
C6227	A	C	3A
C6228	A	C	3A
C6229	A	C	2B
C6230	A	C	3A
C6231	A	C	5B
C6701	A	C	2C
C6702	A	C	2C
C6703	A	C	1C
C6704	A	C	1B
C6705	B	C	2C
CONNECTOR			
CN101	A	C	3A
CN102	A	C	5B
CN103	B	C	5A
CN104	A	C	1A
CN105	B	C	1B
CN106	A	C	5A
CN107	A	C	4C
CN108	A	C	4B
CN109	A	C	1C
CN110	A	C	2C
CN111	B	C	1A
CN112	B	C	4C
CN113	A	C	3C
DIODE			
D1001	B	C	3A
D1002	A	C	1B
D1301	B	C	5A
D1302	B	C	5A
D1602	B	C	3C
D1603	B	C	3B
D1604	B	C	2C
D2001	A	C	3A
D2002	A	C	3A
D3001	B	C	1A
D3002	B	C	3A
D3003	B	C	2A
D3701	A	C	3B
D5501	A	C	3C
D6002	A	C	1A
D6201	A	C	2A
D6202	A	C	2A
D6203	A	C	2A
D6204	A	C	2B
D6205	A	C	2A
D6206	A	C	3A
D6207	A	C	3A
D6701	A	C	1C
D6702	A	C	2C
IC			
IC1001	B	C	3A
IC1002	B	C	5A
IC1003	B	C	3B
IC1004	B	C	3B
IC1005	B	C	4B
IC1006	B	C	3B
IC1007	B	C	3B
IC1009	B	C	3A
IC1301	B	C	4A
IC1302	B	C	5A
IC1303	B	C	5A
IC1304	B	C	4A
IC1401	B	C	2B
IC1402	B	C	2B
IC1403	B	C	1B
IC1404	B	C	2C
IC1601	B	C	3C
IC2001	A	C	4A
IC3001	B	C	2A
IC3002	B	C	1A
IC3003	B	C	1B
IC3004	B	C	1A
IC3005	B	C	3A
IC3006	B	C	1A
IC3007	B	C	1A
IC3501	A	C	2C
IC3701	A	C	3B
IC4201	B	C	4C
IC4202	B	C	4C
IC4301	B	C	4B
IC4302	B	C	4C
IC4304	B	C	3B
IC4802	A	C	3B
IC4803	A	C	4B
IC4804	A	C	3B
IC4806	A	C	4B
IC4851	A	C	4B
IC5501	A	C	4C
IC6001	A	C	1A
IC6101	B	C	1C
COIL			
L1001	B	C	2B
L1002	B	C	3A
L1401	B	C	1C
L1402	B	C	2B
L2001	A	C	4A
L2002	A	C	4B
L3001	B	C	1B
L3002	B	C	3A
L3003	B	C	3B
L3004	B	C	3B
L3005	B	C	2B
L3006	B	C	1B
L3007	B	C	2A
L3008	B	C	2A
L3009	B	C	2A
L3010	A	C	1A
L3011	A	C	1A
L3012	B	C	1B
L3013	B	C	1A
L3501	A	C	3C
L3502	A	C	3B
L3503	A	C	2B
L3504	A	C	2C
L3505	A	C	2C
L3701	A	C	3B
L4201	B	C	4C
L4301	B	C	4B
L4302	B	C	4B
L4303	A	C	5B
L4304	B	C	4B
L4305	B	C	4C
L4306	B	C	4B
L4307	B	C	3B
L4802	A	C	4C
L4851	A	C	4B
L4852	A	C	4B
L4853	A	C	4B
L5501	A	C	3C
L5502	A	C	3C
L5503	A	C	3C
L5504	A	C	3C
L5505	A	C	3C
L5506	A	C	3C
L6101	A	C	1B
L6102	A	C	2C
L6201	A	C	2A
L6202	A	C	2A
L6203	A	C	2A
L6204	A	C	2A
L6205	A	C	1A
L6206	A	C	2B
L6207	A	C	2B
L6208	A	C	2B
L6209	A	C	3A
L6210	A	C	3A
L6701	A	C	1C
TRANSISTOR			
Q1001	B	C	3A
Q1002	B	C	3A
Q1003	B	C	4A
Q1004	B	C	3B
Q1005	B	C	3B
Q1006	B	C	4A
Q1007	B	C	4A
Q1301	B	C	5B
Q1401	B	C	1B
Q1402	B	C	2C
Q1403	B	C	2C
Q1404	B	C	2B
Q1601	B	C	3B
Q2001	A	C	4A
Q2002	A	C	3A
Q2004	A	C	4A
Q3701	A	C	3A
Q3702	A	C	3A
Q4301	B	C	4A
Q4302	B	C	4A
Q4303	B	C	4A
Q4801	A	C	3B
Q4851	A	C	4B
Q6001	A	C	1A
Q6002	A	C	1A
Q6003	A	C	1A
Q6004	A	C	1B
Q6101	B	C	1C
Q6102	B	C	1C
Q6201	A	C	2A
Q6202	B	C	2C
Q6203	A	C	2A
Q6204	A	C	2A
Q6205	A	C	2A
Q6206	A	C	2A
Q6207	A	C	1B
Q6208	A	C	2B
Q6210	A	C	2B
Q6211	A	C	2B
Q6212	A	C	2A
Q6213	A	C	3A
Q6214	A	C	3A
Q6215	A	C	3A
Q6216	A	C	3A
Q6217	A	C	1B
Q6701	A	C	2C
RESISTOR			
R1001	B	C	3A
R1002	B	C	4A
R1003	B	C	4A
R1004	B	C	4A
R1005	B	C	4A
R1006	B	C	4A
R1007	B	C	4A
R1008	B	C	3B
R1009	B	C	3B
R1010	B	C	4A
R1011	B	C	3A
R1012	B	C	4B
R1013	B	C	3A
R1014	B	C	3A
R1015	B	C	3B
R1016	B	C	3B
R1017	B	C	3B
R1018	B	C	3B
R1019	B	C	4A
R1020	B	C	3B
R1021	B	C	3B
R1022	B	C	3B
R1023	B	C	3B
R1024	B	C	3B
R1025	B	C	3B
R1026	B	C	3B
R1027	B	C	3B
R1028	B	C	3B
R1029	B	C	4A
R1030	B	C	4A
R1031	B	C	4B
R1032	B	C	4B
R1033	B	C	3B
R1034	B	C	3B
R1036	B	C	3B
R1037	B	C	3A
R1038	B	C	3A

REF.NO.	LOCATION			REF.NO.	LOCATION			REF.NO.	LOCATION			REF.NO.	LOCATION			REF.NO.	LOCATION			REF.NO.	LOCATION		
R1039	B	C	3A	R1630	A	C	2C	R3053	B	C	2B	R4808	A	C	3B	R6212	B	C	2C	TL1612	B	C	3B
R1040	B	C	3A	R1631	A	C	2C	R3054	B	C	2B	R4809	A	C	3B	R6213	A	C	2A	TL1613	B	C	3B
R1041	B	C	3A	R1635	B	C	3B	R3055	B	C	2B	R4810	A	C	3C	R6214	A	C	2A	TL1614	B	C	3C
R1042	B	C	3A	R1636	B	C	3B	R3501	A	C	2B	R4811	A	C	4B	R6215	A	C	2A	TL1615	B	C	3C
R1043	B	C	3A	R1637	B	C	3B	R3502	A	C	2B	R4812	A	C	4B	R6216	A	C	2A	TL1616	B	C	2C
R1044	B	C	4A	R1638	B	C	2C	R3503	A	C	2C	R4813	A	C	4C	R6217	A	C	1B	TL1617	B	C	2C
R1045	B	C	4A	R1639	B	C	2C	R3504	A	C	2C	R4814	A	C	4B	R6218	A	C	1A	TL1618	B	C	2C
R1046	B	C	4A	R1640	B	C	2C	R3505	A	C	2C	R4815	A	C	4B	R6219	A	C	2B	TL1619	B	C	2C
R1047	B	C	4A	R1641	B	C	2C	R3506	A	C	2C	R4816	A	C	4C	R6220	A	C	2B	TL3001	B	C	1B
R1048	B	C	4A	R1643	B	C	2C	R3507	A	C	3C	R4817	A	C	3B	R6221	B	C	2C	TL3002	B	C	2A
R1049	B	C	4A	R1646	B	C	2C	R3508	A	C	3C	R4818	A	C	3B	R6223	B	C	2C	TL3004	B	C	1B
R1050	B	C	4A	R2006	A	C	4A	R3509	A	C	2B	R4819	A	C	4B	R6224	B	C	2C	TL3501	B	C	1B
R1051	B	C	3A	R2007	A	C	3A	R3510	A	C	3B	R4820	A	C	3B	R6225	B	C	2C	TL4201	B	C	5C
R1052	B	C	3A	R2008	A	C	4A	R3521	A	C	3B	R4821	A	C	4B	R6226	B	C	2C	TL4202	B	C	5C
R1053	B	C	3A	R2009	A	C	3A	R3522	A	C	2C	R4822	A	C	4B	R6227	B	C	2C	TL4203	B	C	5C
R1054	B	C	3A	R2014	A	C	3A	R3701	A	C	4B	R4823	A	C	4B	R6228	A	C	2A	TL4301	B	C	5B
R1055	B	C	3A	R2015	A	C	3A	R3702	A	C	3B	R4824	A	C	4B	R6229	A	C	2A	TL4302	B	C	4B
R1056	B	C	3A	R2016	A	C	3A	R3703	A	C	3B	R4829	A	C	3C	R6230	A	C	2A	TL4303	B	C	4B
R1057	B	C	3A	R2017	A	C	3A	R3706	A	C	4A	R4831	A	C	4B	R6231	A	C	3A	TL4304	B	C	5B
R1058	B	C	3A	R2018	A	C	4A	R3707	A	C	3A	R4833	A	C	4B	R6232	A	C	2A	TL4305	B	C	4B
R1061	B	C	3A	R2019	A	C	4A	R3708	A	C	3A	R4836	A	C	4B	R6233	A	C	2A	TL4306	B	C	4B
R1062	B	C	3B	R2020	A	C	4A	R3711	A	C	3B	R4845	A	C	4B	R6234	A	C	3A	TL4307	B	C	4B
R1080	B	C	3B	R2023	A	C	4A	R3712	A	C	3B	R4848	A	C	3B	R6235	A	C	3A	TL4308	B	C	4B
R1302	B	C	5A	R2024	A	C	4A	R3713	A	C	3A	R4850	A	C	3B	R6236	A	C	2A	TL4309	B	C	4B
R1305	B	C	5A	R2025	A	C	4A	R3714	A	C	3A	R4852	A	C	4B	R6237	A	C	3A	TL4310	B	C	4A
R1306	B	C	5A	R2026	A	C	4A	R3715	A	C	3A	R4856	A	C	4B	R6238	A	C	3A	TL4311	B	C	4B
R1307	B	C	4A	R2027	A	C	4A	R3716	A	C	3A	R4857	A	C	4B	R6239	A	C	3A	TL4312	B	C	4B
R1308	B	C	4A	R2028	A	C	4A	R3717	A	C	3A	R4858	A	C	4B	R6240	A	C	3A	TL4313	B	C	4B
R1401	B	C	1B	R2029	A	C	4B	R3718	A	C	3A	R4862	A	C	4B	R6241	A	C	3A	TL4314	B	C	4B
R1402	B	C	1B	R2101	A	C	5A	R3719	A	C	3A	R4863	A	C	4B	R6242	A	C	3A	TL4315	B	C	3B
R1403	B	C	1B	R2102	A	C	5A	R3723	A	C	4A	R4864	A	C	4B	R6243	A	C	3A	TL4316	B	C	3B
R1407	B	C	1B	R2103	A	C	4A	R3724	A	C	4A	R4865	A	C	4B	R6244	A	C	1B	TL4317	B	C	3B
R1408	B	C	1B	R2104	A	C	4A	R4201	B	C	5C	R4866	A	C	4B	R6245	A	C	1B	TL4318	B	C	5B
R1409	B	C	1B	R2105	A	C	4A	R4202	B	C	5C	R4867	A	C	4B	R6246	A	C	1A	TL4405	A	C	4C
R1410	B	C	1B	R2106	A	C	4A	R4203	B	C	5C	R4868	A	C	4B	R6701	A	C	1C	TL4801	A	C	3B
R1411	B	C	1B	R2107	A	C	4A	R4204	B	C	5C	R4870	A	C	4B	R6702	A	C	1B	TL5501	A	C	4B
R1412	B	C	1B	R2108	A	C	4A	R4205	B	C	4C	R4874	A	C	4B	R6703	A	C	1B	TL5502	A	C	4B
R1413	B	C	1B	R2109	A	C	4A	R4206	B	C	4C	R5501	A	C	4C	R6712	A	C	1A	TL5503	A	C	4B
R1414	B	C	2B	R2110	A	C	5A	R4207	B	C	4C	R5503	A	C	4C	R6713	A	C	1A	TL5504	A	C	4C
R1415	B	C	2B	R2111	A	C	4A	R4208	B	C	4C	R5504	A	C	4C	RA1001	B	C	4A	TM1	A	C	5A
R1416	B	C	2B	R2112	A	C	5A	R4301	B	C	5B	R5505	A	C	4C	RA1002	B	C	4A	TM2	A	C	1A
R1417	B	C	2B	R2113	A	C	4A	R4303	B	C	5B	R5506	A	C	4C	RA1003	B	C	4A	TM3	A	C	5A
R1418	B	C	2B	R2114	A	C	5A	R4304	B	C	5B	R5507	A	C	4C	RA1004	B	C	4A	TM4	A	C	1A
R1419	B	C	2B	R2117	A	C	5A	R4305	B	C	5B	R5509	A	C	4B	RA1005	B	C	4A	X1001	B	C	3A
R1420	B	C	2B	R2118	A	C	4A	R4306	B	C	5B	R5510	A	C	4B	RA1006	B	C	3A	X1002	B	C	5A
R1422	B	C	1B	R2119	A	C	5A	R4307	B	C	5B	R5511	A	C	4B	RA1007	B	C	3A	X3002	B	C	2A
R1423	B	C	1B	R2120	A	C	4A	R4308	B	C	5B	R5512	A	C	4B	RA1008	B	C	3A	X5501	A	C	4C
R1424	B	C	1C	R2127	A	C	5A	R4309	B	C	5B	R5513	A	C	4B	RA1009	B	C	4A				
R1425	B	C	1C	R2128	A	C	4A	R4310	B	C	5B	R5514	A	C	4B	RA1010	B	C	3A				
R1426	B	C	1C	R2129	A	C	4A	R4311	B	C	5B	R5515	A	C	4C	RA1401	B	C	1B				
R1427	B	C	1C	R2130	A	C	4A	R4312	B	C	5B	R5516	A	C	4C	RA1402	B	C	1B				
R1428	B	C	1C	R2201	A	C	5A	R4313	B	C	5B	R6001	A	C	1A	RA1403	B	C	1B				
R1429	B	C	1B	R2202	A	C	5A	R4314	B	C	5B	R6002	A	C	1A	RA3001	B	C	3A				
R1430	B	C	1B	R3002	B	C	2A	R4315	B	C	5B	R6003	A	C	1A	RA3002	B	C	3A				
R1432	B	C	2C	R3004	B	C	2A	R4316	B	C	4A	R6004	A	C	1A	RA4301	B	C	4C				
R1433	B	C	2C	R3007	B	C	2A	R4317	B	C	4A	R6005	A	C	1A	RA4302	B	C	3C				
R1434	B	C	2C	R3008	B	C	2A	R4318	B	C	4A	R6009	A	C	1A	RA4303	B	C	4C				
R1435	B	C	2C	R3009	B	C	2A	R4319	B	C	4A	R6010	A	C	1B	**TESTPOINT**							
R1436	B	C	2C	R3010	B	C	2A	R4320	B	C	4A	R6011	A	C	1B	TP4319	B	C	4C				
R1437	B	C	2B	R3011	B	C	2A	R4321	B	C	4A	R6012	A	C	1B	**OTHER**							
R1439	B	C	2C	R3013	B	C	2B	R4322	B	C	4A	R6013	A	C	1B								
R1440	B	C	2C	R3014	B	C	2B	R4323	B	C	4A	R6014	A	C	1B	F6101	A	C	1A				
R1441	B	C	2C	R3015	B	C	2B	R4324	B	C	4A	R6015	A	C	1A	J101	A	D	1A				
R1442	B	C	2C	R3016	A	C	1A	R4325	B	C	4A	R6016	A	C	1A	S6001	A	C	1B				
R1443	B	C	2B	R3017	A	C	1A	R4326	B	C	4A	R6101	B	C	2C	TL1001	A	C	3A				
R1444	B	C	2B	R3018	A	C	1A	R4327	B	C	4A	R6102	B	C	2C	TL1002	A	C	3A				
R1445	B	C	2B	R3019	A	C	1A	R4328	B	C	4A	R6103	B	C	2C	TL1003	A	C	3A				
R1601	B	C	3B	R3020	A	C	1A	R4329	B	C	4A	R6104	B	C	1C	TL1301	B	C	4A				
R1602	B	C	3B	R3021	A	C	1A	R4330	B	C	4A	R6105	B	C	2C	TL1401	A	C	1B				
R1603	B	C	3B	R3022	A	C	1A	R4331	B	C	4A	R6106	B	C	2C	TL1402	A	C	1B				
R1604	B	C	3B	R3023	A	C	1A	R4332	B	C	4A	R6107	B	C	2C	TL1403	A	C	1B				
R1605	B	C	3C	R3024	A	C	1A	R4333	B	C	4B	R6108	B	C	2C	TL1404	A	C	1B				
R1606	B	C	3C	R3026	B	C	2B	R4334	B	C	4B	R6109	B	C	2C	TL1406	A	C	1C				
R1607	B	C	2C	R3027	B	C	2A	R4335	B	C	4B	R6110	B	C	2C	TL1407	A	C	1B				
R1608	B	C	2C	R3028	B	C	3A	R4336	B	C	4B	R6113	B	C	2C	TL1408	A	C	1B				
R1609	B	C	3C	R3029	B	C	3A	R4337	B	C	4B	R6114	B	C	2C	TL1409	A	C	1B				
R1610	B	C	3C	R3030	B	C	3A	R4338	B	C	4C	R6115	B	C	2C	TL1410	A	C	1C				
R1611	B	C	3C	R3031	B	C	2A	R4339	B	C	4B	R6116	B	C	2C	TL1411	A	C	1B				
R1612	B	C	3C	R3032	B	C	2A	R4340	B	C	4B	R6117	B	C	1C	TL1412	A	C	1B				
R1613	B	C	3C	R3033	B	C	2A	R4341	B	C	3B	R6118	B	C	1C	TL1413	A	C	1B				
R1614	B	C	3C	R3034	B	C	2A	R4342	B	C	5B	R6122	B	C	1C	TL1414	A	C	1C				
R1615	B	C	3C	R3035	B	C	3A	R4343	B	C	5B	R6123	B	C	2C	TL1415	A	C	1B				
R1616	B	C	2C	R3036	B	C	1B	R4344	B	C	5B	R6124	B	C	1C	TL1416	A	C	1C				
R1617	B	C	2C	R3037	B	C	1B	R4345	B	C	4B	R6201	B	C	2C	TL1601	B	C	2C				
R1618	B	C	2C	R3041	B	C	1B	R4346	B	C	3B	R6202	B	C	2C	TL1602	B	C	3C				
R1619	B	C	2C	R3042	B	C	1B	R4347	B	C	5B	R6203	B	C	2C	TL1603	B	C	3C				
R1620	B	C	2B	R3043	B	C	1B	R4348	B	C	5B	R6204	B	C	2C	TL1604	B	C	3B				
R1621	B	C	2B	R3044	B	C	1B	R4349	B	C	5B	R6205	B	C	2C	TL1605	A	C	2C				
R1622	B	C	3C	R3046	B	C	1B	R4350	B	C	5B	R6206	B	C	2C	TL1606	A	C	2C				
R1624	B	C	3B	R3047	B	C	1B	R4351	B	C	5B	R6207	B	C	2C	TL1607	A	C	3C				
R1625	B	C	2C	R3049	B	C	1A	R4804	A	C	3C	R6208	B	C	2C	TL1608	A	C	2C				
R1626	B	C	2C	R3050	B	C	1A	R4805	A	C	3B	R6209	B	C	2C	TL1609	A	C	3C				
R1628	B	C	3B	R3051	B	C	2A	R4806	A	C	4B	R6210	B	C	2C	TL1610	A	C	3C				
R1629	B	C	2B	R3052	B	C	2B	R4807	A	C	4B	R6211	B	C	2C	TL1611	B	C	3C				

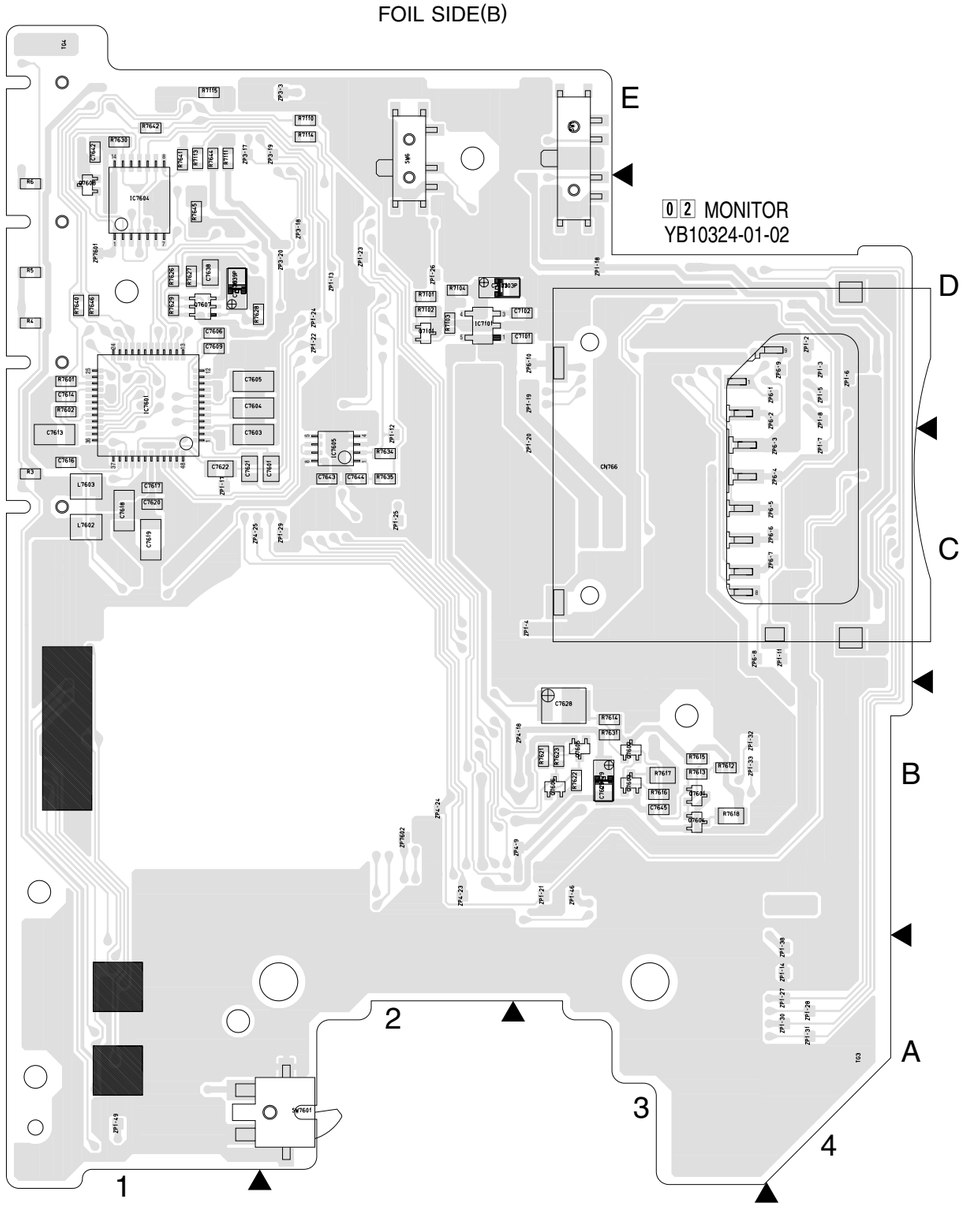
COMPONENT SIDE(A)

01 MAIN PWB
YB10313-01-02

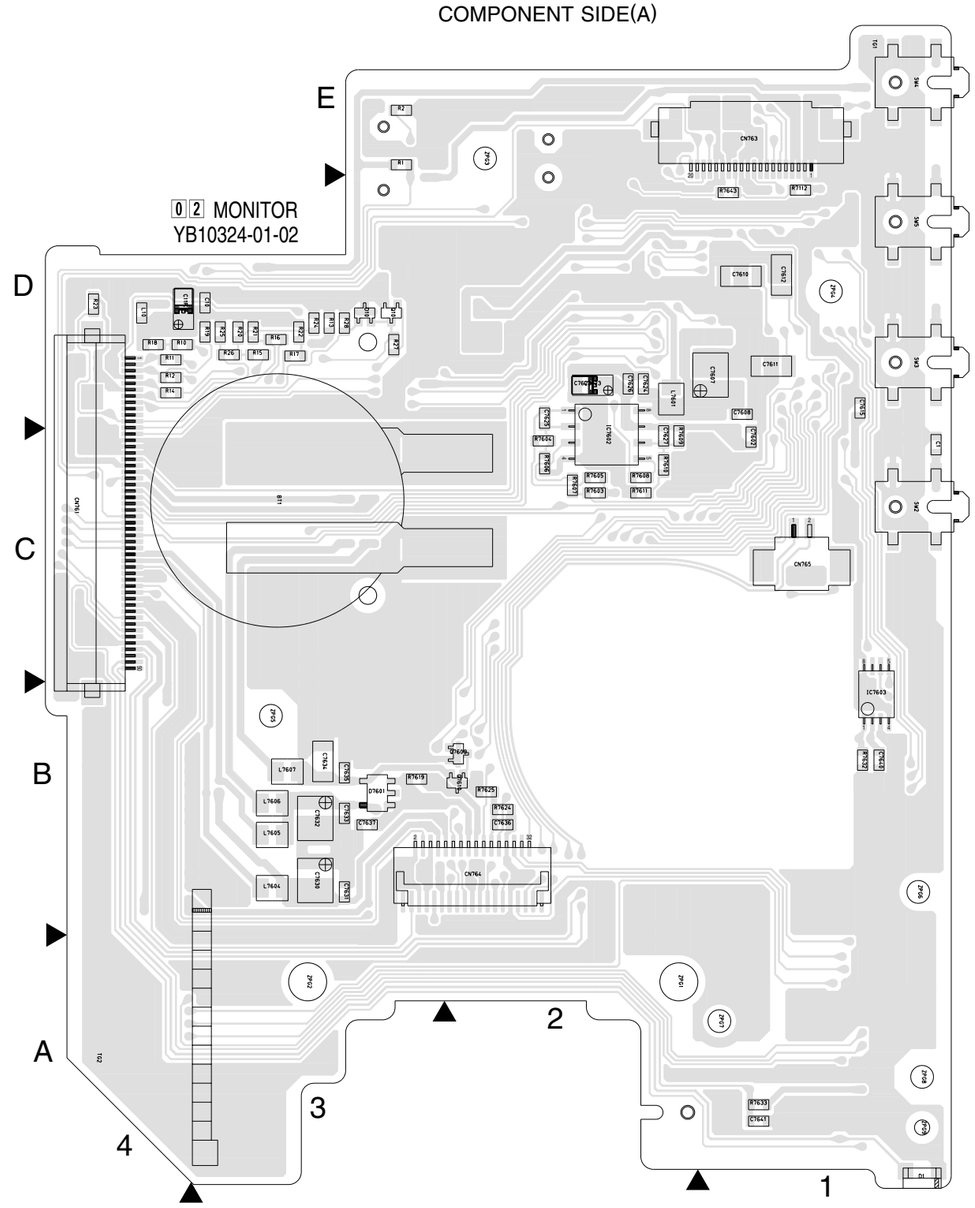

CN113
CN107
CN108
CN102
CN106
CN101
CN110
CN109
CN104
IC5501
IC4851
IC4804
IC4803
IC4802
IC2001
IC3501
IC3701
X5501
L5505
L5506
L5501
L5502
L5503
L5504
L4802
L4303
L4853
L4852
L2002
L2001
L3501
L3502
L3503
L3504
L3505
L3701
L6208
L6207
L6206
L6205
L6204
L6203
L6202
L6201
L6102
L6101
L6701
L6210
L6209
S-CASE
S-CASE-L1
S-CASE-L2
S-CASE-L3
TG1
TG2
TM1
TM2
TM3
TM4
J101
S6001
Q6004
Q6205
Q6207
Q6211
Q6216
Q6230
Q4801
Q4854
Q6001
D6702
D6701
D6205
D6204
D6202
D6203
D6201
D6207
D6215
D6213
D6216
D6212
D6214
D6208
D6002
D6003
D5501
D3702
D3701
D6206
D2001
D2002
D2003
D2004
D2005
D2006
D2007
D2008
D2009
D2010
D2011
D2012
D2013
D2014
D2015
D2016
D2017
D2018
D2019
D2020
D2021
D2022
D2023
D2024
D2025
D2026
D2027
D2028
D2029
C6120
C6703
C6702
C6105
C6701
C6103
C6102
C6101
C6218
C6217
C6704
C6703
C6210
C6214
C6208
C6206
C6204
C6202
C6220
C6221
C6215
C6227
C6228
C6222
C6230
C6226
C6225
C6224
C6207
C6209
C6201
C6213
C6212
C6004
C6005
C6217
C6213
C6212
C6133
C6132
C6131
C6103
C6001
C6002
C6003
C6004
C6005
C6006
C6007
C6008
C6009
C6010
C6011
C6012
C6013
C6014
C6015
C6016
C6017
C6018
C6019
C6020
C6021
C6022
C6023
C6024
C6025
C6026
C6027
C6028
C6029
C6030
C6031
C6032
C6033
C6034
C6035
C6036
C6037
C6038
C6039
C6040

4.22 MONITOR CIRCUIT BOARD

FOIL SIDE(B)



COMPONENT SIDE(A)



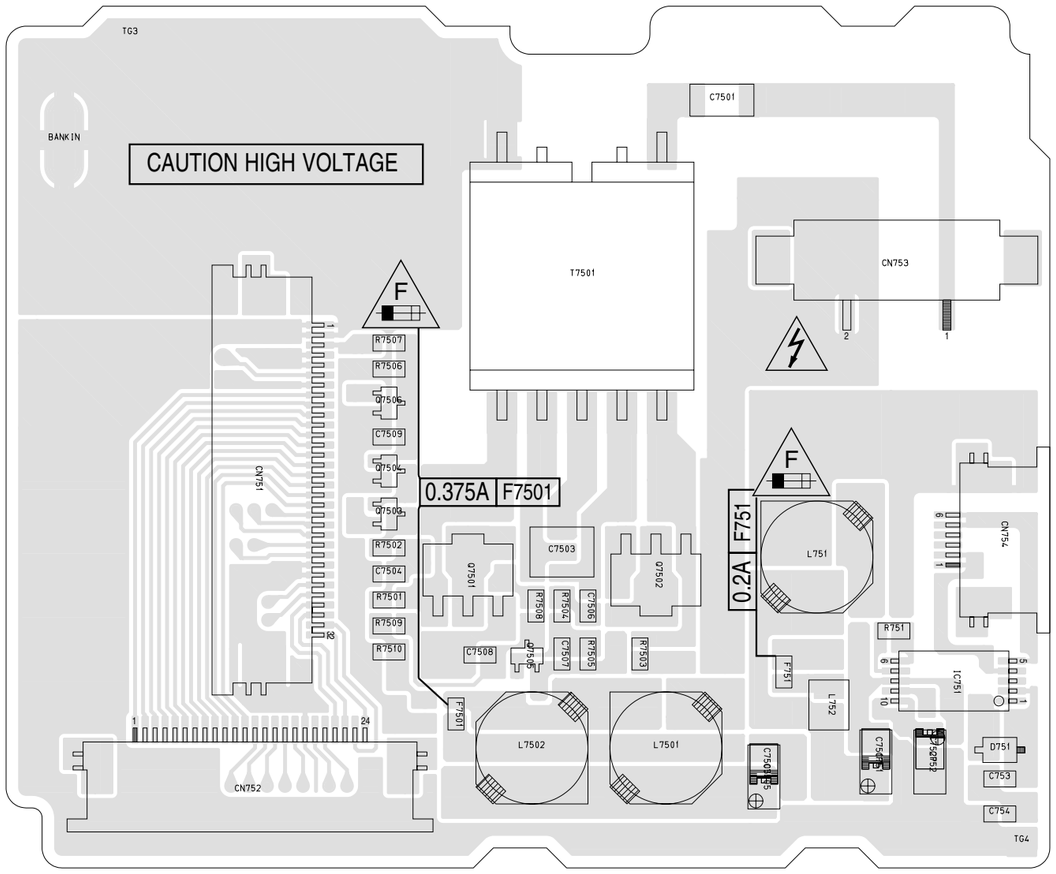
COMPONENT PARTS LOCATION GUIDE ＜MONITOR＞

REF.NO.	LOCATION
CAPACITOR	
C1	A C 1C
C10	A C 3D
C11	A C 4D
C7101	B C 3D
C7102	B C 3D
C7103	B C 2D
C7601	B C 2C
C7602	A C 1C
C7603	B C 2C
C7604	B C 2D
C7605	B C 2D
C7606	B C 1D
C7607	A C 1D
C7608	A C 1D
C7609	B C 1D
C7610	A C 1D
C7611	A C 1D
C7612	A C 1D
C7613	B C 1D
C7614	B C 1D
C7615	A C 1D
C7616	B C 1C
C7617	B C 1C
C7618	B C 1C
C7619	B C 1C
C7620	B C 1C
C7621	B C 2C
C7622	B C 1C
C7623	A C 2D
C7624	A C 2D
C7625	A C 2D
C7626	A C 2D
C7627	A C 2C
C7628	B C 3B
C7629	B C 3B
C7630	A C 3B
C7631	A C 3B
C7632	A C 3B
C7633	A C 3B
C7634	A C 3B
C7635	A C 3B
C7636	A C 2B
C7637	A C 3B
C7638	B C 1D
C7639	B C 1D
C7640	A C 1B
C7641	A C 1A
C7642	B C 1E
C7643	B C 2C
C7644	B C 2C
C7645	B C 3B
CONNECTOR	
CN761	A C 4D
CN763	A C 1E
CN764	A C 3B
CN765	A C 1C
CN766	B C 4C
DIODE	
D1	A C 1A
D10	A C 3D
D7601	A C 3B
IC	
IC7101	B C 2D
IC7601	B C 1D
IC7602	A C 2C
IC7603	A C 1B
IC7604	B C 1D
IC7605	B C 2C
COIL	
L10	A C 4D
L7601	A C 2D
L7602	B C 1C
L7603	B C 1C
L7604	A C 3B
L7605	A C 3B
L7606	A C 3B
L7607	A C 3B
TRANSISTOR	
Q10	A C 3D
Q7101	B C 2D
Q7601	B C 3B
Q7602	B C 3B
Q7603	B C 3B
Q7604	B C 3B
Q7605	B C 3B
Q7606	B C 3B
Q7607	B C 1D
Q7608	B C 1D
Q7609	A C 2B
Q7610	A C 2B
RESISTOR	
R1	A C 3E
R2	A C 3E
R3	B C 1C
R4	B C 1D
R5	B C 1D
R6	B C 1D
R10	A C 4D
R11	A C 4D
R12	A C 4D
R13	A C 3D
R14	A C 4D
R15	A C 3D
R16	A C 3D
R17	A C 3D
R18	A C 4D
R19	A C 3D
R20	A C 3D
R21	A C 3D
R22	A C 3D
R23	A C 4D
R24	A C 3D
R25	A C 3D
R26	A C 3D
R27	A C 3D
R28	A C 3D
R7101	B C 2D
R7102	B C 2D
R7103	B C 2D
R7104	B C 2D
R7110	B C 2E
R7111	B C 1E
R7112	A C 1D
R7113	B C 1E
R7114	B C 2E
R7115	B C 1E
R7601	B C 1D
R7602	B C 1D
R7603	A C 2C
R7604	A C 2C
R7605	A C 2C
R7606	A C 2C
R7607	A C 2C
R7608	A C 2C
R7609	A C 2C
R7610	A C 2C
R7611	A C 2C
R7612	B C 3B
R7613	B C 3B
R7614	B C 3B
R7615	B C 3B
R7616	B C 3B
R7617	B C 3B
R7618	B C 3B
R7619	A C 3B
R7621	B C 3B
R7622	B C 3B
R7623	B C 3B
R7624	A C 2B
R7625	A C 2B
R7626	B C 1D
R7627	B C 1D
R7628	B C 2D
R7629	B C 1D
R7630	B C 1E
R7631	B C 3B
R7632	A C 1B
R7633	A C 1A
R7634	B C 2C
R7635	B C 2C
R7640	B C 1D
R7641	B C 1E
R7642	B C 1E
R7643	A C 1D
R7644	B C 1E
R7645	B C 1D
R7646	B C 1D
OTHER	
BT1	A C 3C
C11P	A C 4D
C7103P	B C 3D
C7623P	A C 2D
C7629P	B C 3B
C7639P	B C 1D
SW1	B C 3E
SW2	A C 1C
SW3	A C 1D
SW4	A C 1E
SW5	A C 1D
SW6	B C 2E
SW7601	B C 2A
TM1	A C 4A
ZP1-2	B C 4D
ZP1-3	B C 4D
ZP1-4	B C 3C
ZP1-5	B C 4D
ZP1-6	B C 4D
ZP1-7	B C 4C
ZP1-8	B C 4D
ZP3-3	B C 2E
ZP4-9	B C 3D
ZP6-1	B C 3C
ZP6-2	B C 3C
ZP6-3	B C 3C
ZP6-4	B C 3C
ZP6-5	B C 3C
ZP6-6	B C 3C
ZP6-7	B C 3C
ZP6-8	B C 4C
ZP6-9	B C 4D
ZP1-11	B C 4C
ZP1-12	B C 2C
ZP1-13	B C 4D
ZP1-14	B C 4A
ZP1-17	B C 3D
ZP1-18	B C 3D
ZP1-19	B C 3D
ZP1-20	B C 3C
ZP1-21	B C 3B
ZP1-22	B C 2D
ZP1-23	B C 2D
ZP1-24	B C 2C
ZP1-25	B C 2D
ZP1-26	B C 2D
ZP1-27	B C 2B
ZP1-28	B C 2B
ZP1-29	B C 2C
ZP1-30	B C 4A
ZP1-31	B C 4A
ZP1-32	B C 3B
ZP1-33	B C 3B
ZP1-46	B C 3B
ZP1-49	B C 1A
ZP3-17	B C 1E
ZP3-18	B C 2D
ZP3-19	B C 2E
ZP3-20	B C 2D
ZP4-18	B C 3B
ZP4-23	B C 2B
ZP4-24	B C 2B
ZP4-25	B C 2C
ZP6-10	B C 3D
ZP7601	B C 1D
ZP7602	B C 2B
ZPG1	A D 2A
ZPG2	A D 3A
ZPG3	A D 2E
ZPG4	A D 1D
ZPG5	A D 3B
ZPG6	A D 1B
ZPG7	A D 1A
ZPG8	A D 1A
ZPG9	A D 1A

4.23 LCD BL CIRCUIT BOARD

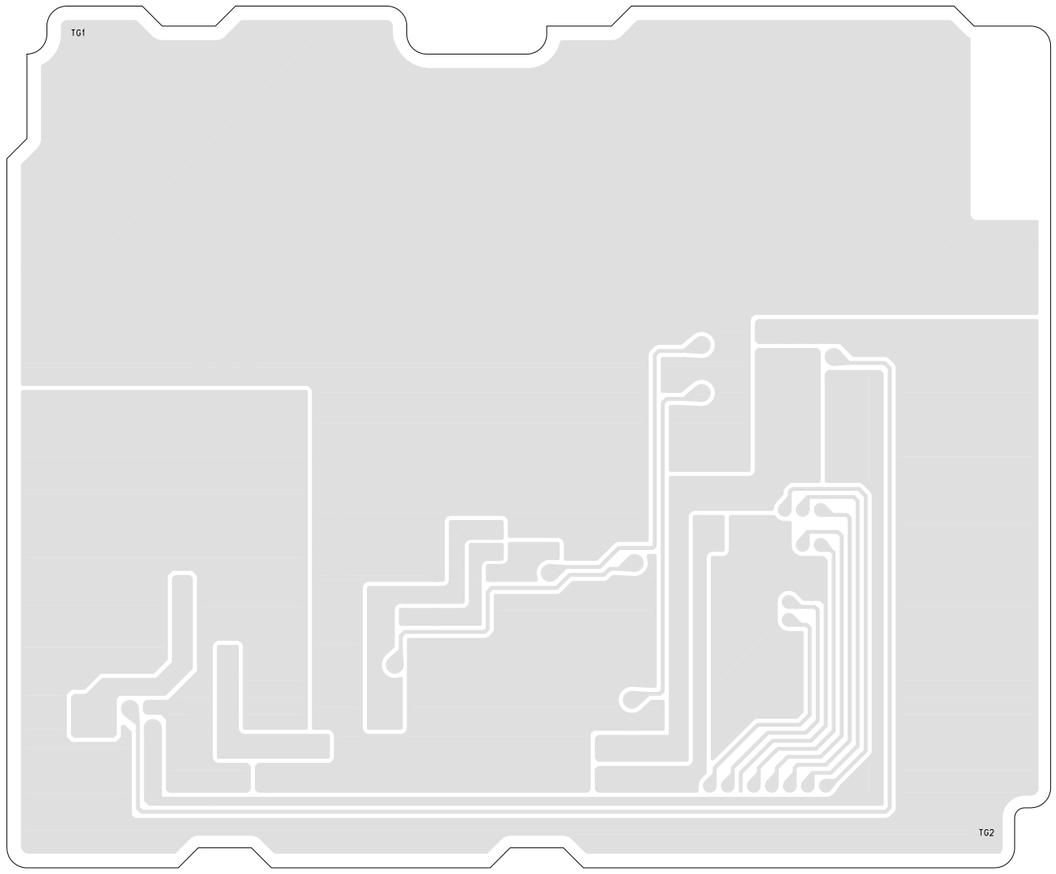
FOIL SIDE(B)

03 LCD BL
YB10324-01-02



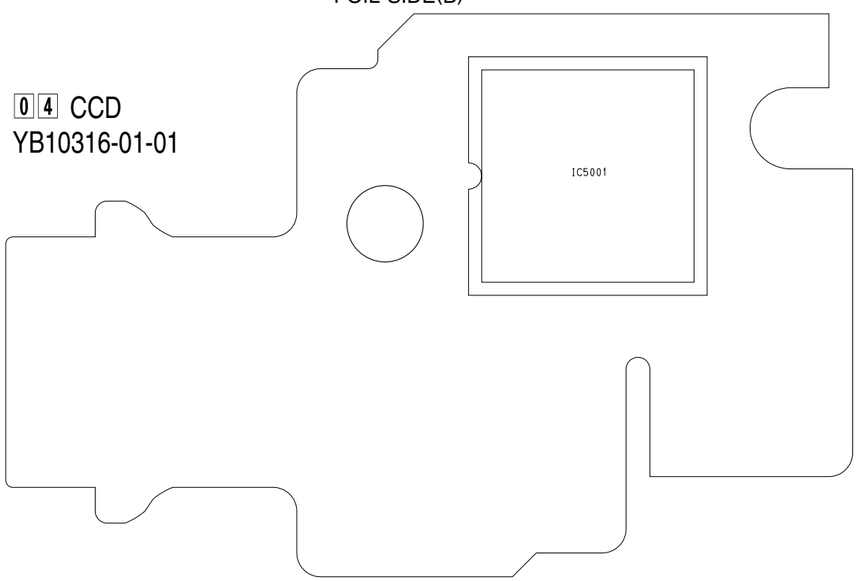
COMPONENT SIDE(A)

03 LCD BL
YB10324-01-02



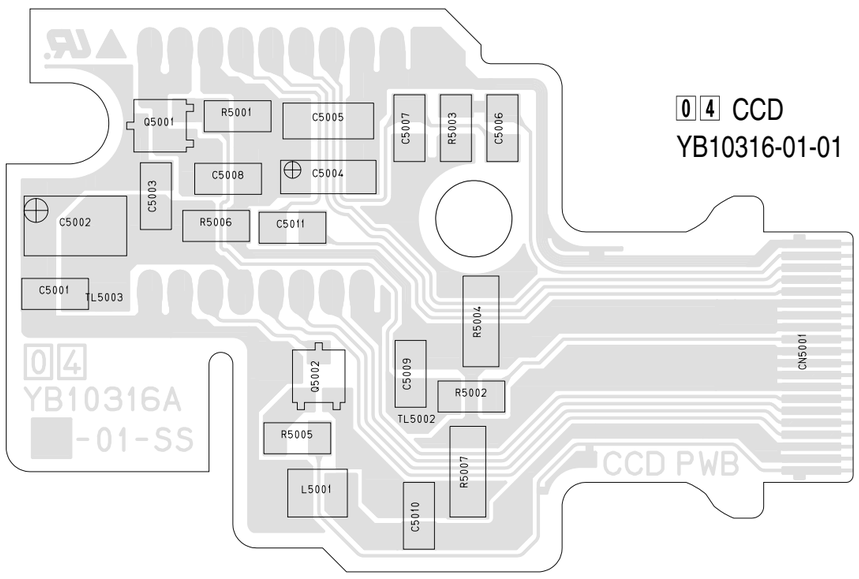
FOIL SIDE(B)

04 CCD
YB10316-01-01



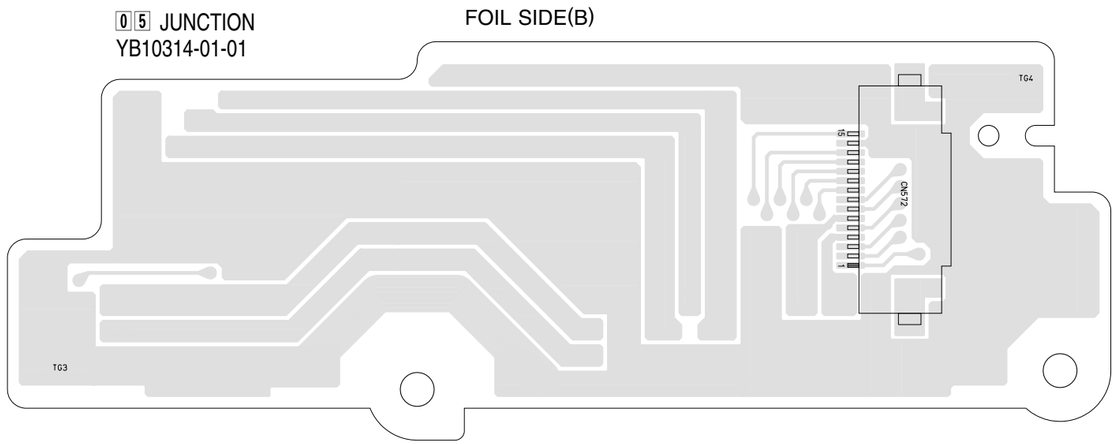
COMPONENT SIDE(A)

04 CCD
YB10316-01-01



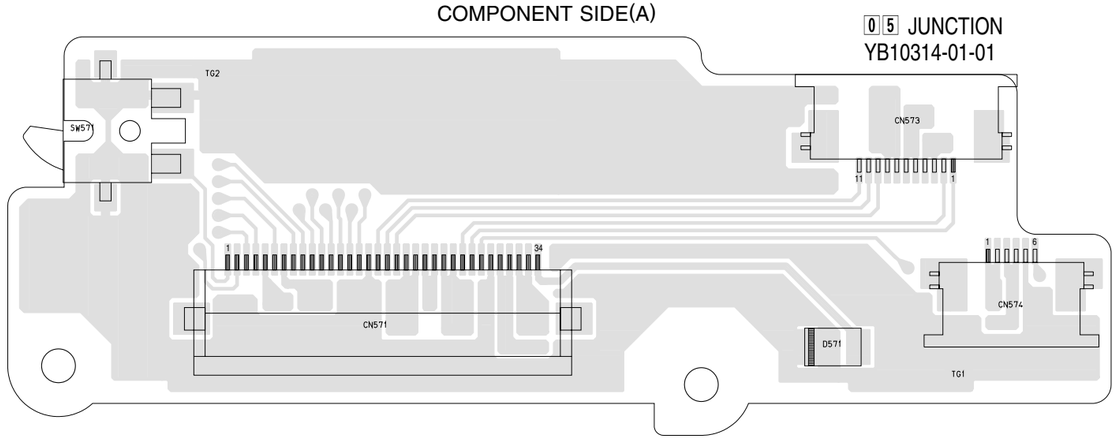
05 JUNCTION
YB10314-01-01

FOIL SIDE(B)



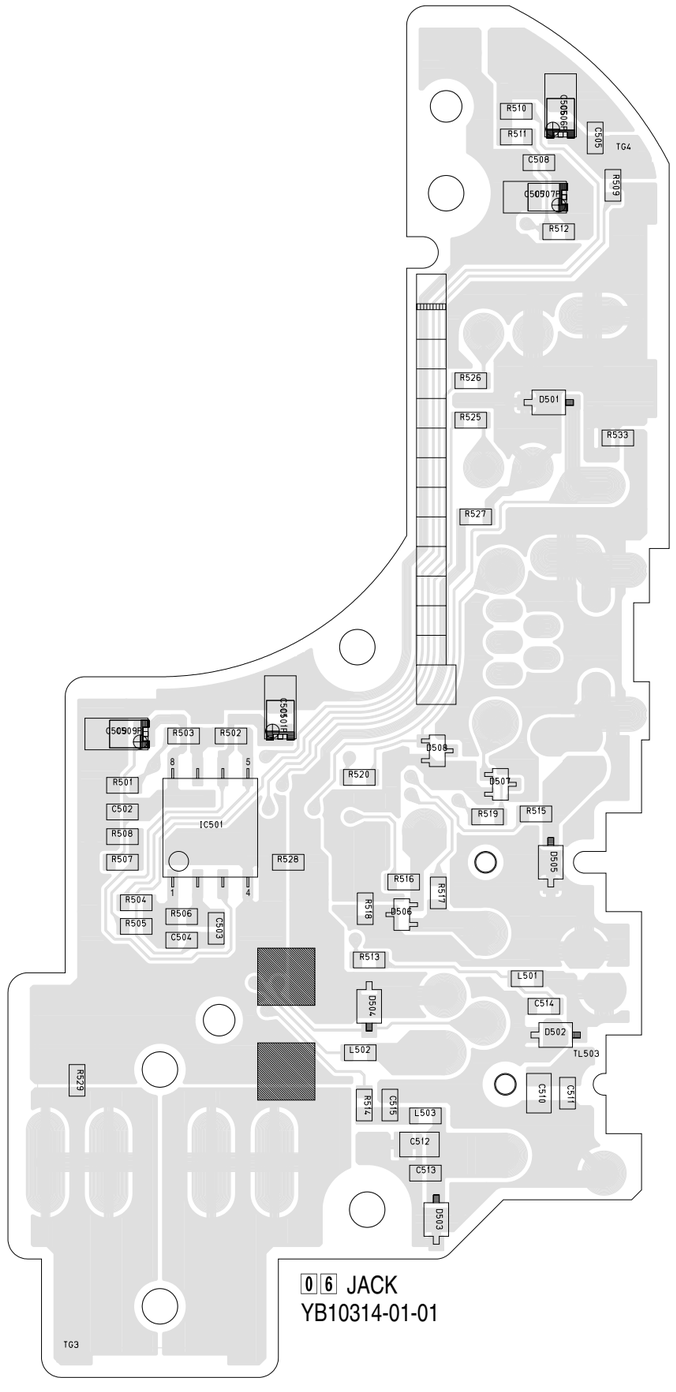
COMPONENT SIDE(A)

05 JUNCTION
YB10314-01-01



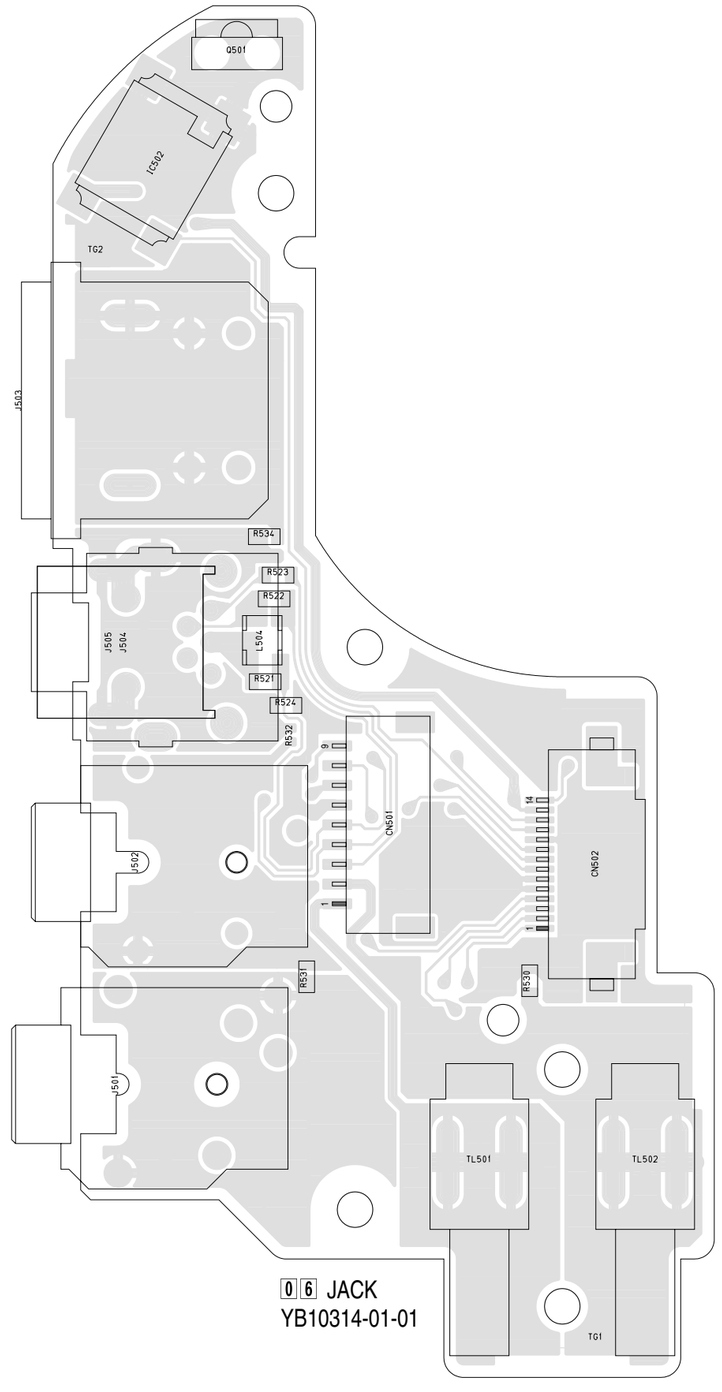
4.25 JACK CIRCUIT BOARD

FOIL SIDE(B)



06 JACK
YB10314-01-01

COMPONENT SIDE(A)



06 JACK
YB10314-01-01

4.26 VOLTAGE CHARTS

<SYSCON>

MODE PIN NO.	REC	PLAY
IC1001	-	-
IC1002		
1	0	0
2	3.0	3.0
3	1.5	1.5
4	0	0
5	2.9	2.9
6	0.5	0.5
7	0.5	0.5
8	3.1	3.1
IC1003		
1	3.0	3.0
2	0.7	0.7
3	2.9	3.0
4	0	0
5	0.6	0.7
6	3.0	3.0
7	2.9	2.9
8	2.9	2.9
IC1004		
1	1.4	1.4
2	0	0
3	1.3	1.3
4	0	0
5	3.0	3.0
IC1005		
1	0	0
2	3.0	3.0
3	0	0
4	3.0	3.0
5	3.0	3.0
IC1006		
1	2.7	2.7
2	0.5	0.5
3	0	0
4	3.0	3.0
5	3.0	3.0
6	3.0	3.0
7	1.3	1.3
8	1.4	1.4
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	0	0
15	0	0
16	0	0
17	0	0
18	0	0
19	2.9	2.9
20	2.7	2.7
IC1007		
1	3.0	3.0
2	3.0	3.0
3	3.0	3.0
4	3.0	3.0
5	3.0	3.0
6	3.0	3.0
7	0	0
8	3.0	3.0
9	3.0	3.0
10	3.0	3.0
11	1.3	1.3
12	1.5	1.5
13	3.0	3.0
14	3.0	3.0
IC1009		
1	0	0
2	0	0
3	3.0	3.0
4	3.0	3.0
Q1001		
E	0	0
C	0	0
B	0	0
Q1002		
E	0	0
C	3.0	3.0
B	0.6	0.6
Q1003		
E	0	0
C	0.5	0.5
B	0	0
Q1004		
E	3.1	3.1
C	0	0
B	3.1	3.1
Q1005		
E	0	0
C	3.1	3.1
B	0	0
Q1006		
E	2.9	0
C	2.9	0
B	0	3.0
Q1007		
E	0	0
C	0	3.0
B	3.1	0

<PC IF>

MODE PIN NO.	REC	PLAY
IC1301	-	-
IC1302	-	-
IC1303		
1	3.0	3.0
2	0	0
3	0	0
4	0	0
5	3.0	3.0
IC1304		
1	3.0	3.0
2	0	0
3	0	0
4	0	0
5	3.0	3.0
Q1301		
E	0	0
C	0	0
B	0	0

<VTR CPU>

MODE PIN NO.	REC	PLAY
IC1401	-	-
IC1402	-	-
IC1403		
1	3.0	3.0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	3.0	3.0
8	3.0	3.0
IC1404		
1	-	-
2	2.9	2.9
3	-	-
4	0	0
5	-	-
6	0	0
7	-	-
8	2.9	2.9
Q1401		
1	3.0	3.0
2	3.0	3.0
3	3.0	3.0
Q1402		
1(E)	0	0
2(B)	3.0	3.0
3(E)	3.0	3.0
4(C)	2.7	2.7
5(C)	0	0
Q1403		
1(E)	0	0
2(B)	0	0
3(E)	3.0	3.0
4(C)	0	0
5(C)	3.0	3.0
Q1404		
1	0	0
2	0	0
3	3.0	3.0

<MDA>

MODE PIN NO.	REC	PLAY
IC1601		
1	0	0
2	0.8	0.8
3	0.8	0
4	0	0
5	0.8	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	4.7	4.7
15	0	0
16	0	0
17	0	0
18	0	0
19	0	0
20	0.4	0.4
21	0	0
22	0	0
23	0.9	0.9
24	11.0	11.0
25	1.5	1.5
26	0	0
27	1.5	1.5
28	1.5	1.5
29	1.5	1.5
30	1.5	1.5
31	1.5	1.5
32	1.5	1.5
33	1.4	0
34	1.4	0
35	0	0
36	2.9	2.9
37	0	0
38	0.6	0.6
39	0	0.6
40	0	1.2
41	1.5	0
42	0.5	0.7
43	2.9	2.9
44	0	0
45	0	0
46	0	0
47	0.9	2.9
48	0	0
49	2.9	2.9
50	1.9	1.9
51	0	0
52	1.6	1.6
53	0	1.1
54	0.4	0.7
55	0.6	0.6
56	0.7	0.7
57	1.0	1.0
58	0.6	0.6
59	0	0
60	1.0	1.0
61	2.6	0
62	0	1.2
63	0	1.5
64	0	1.5
65	0	1.4
66	0	0
67	0	1.5
68	0.4	0
69	0	0
70	0	0.8
71	0	0.8
72	0	0.8
73	0.8	0
74	1.1	0
75	0	0
76	0	0
77	0	0
78	0	1.7
79	0	0
80	0	0
Q1601		
1(E)	0	0
2(B)	0	0
3(E)	4.8	4.8
4(C)	0	0
5(C)	4.8	4.8

<AUDIO>

MODE PIN NO.	REC	PLAY
IC2001		
1	2.0	2.0
2	2.0	2.0
3	2.0	2.0
4	2.0	2.0
5	1.5	1.5
6	1.5	1.5
7	1.5	1.5
8	0	0
9	3.0	3.0
10	1.5	1.5
11	1.5	1.5
12	1.5	1.5
13	1.5	1.5
14	1.5	1.5
15	1.5	1.5
16	1.5	1.5
17	1.5	1.5
18	1.5	0
19	1.5	2.3
20	2.3	2.3
21	1.5	1.4
22	2.3	2.3
23	2.3	2.3
24	4.7	4.7
25	2.3	2.3
26	0	0
27	2.9	2.9
28	0	0
29	1.5	1.5
30	1.5	1.5
31	1.5	1.7
32	2.9	1.7
33	3.0	3.0
34	1.5	1.5
35	1.5	1.5
36	1.5	1.5
37	3.0	3.1
38	2.4	3.1
39	0	0
40	2.4	2.4
41	0	0
42	0	0
43	4.8	4.8
44	1.5	1.5
45	2.0	2.0
46	2.0	2.0
47	2.0	2.0
48	2.0	2.0
49	2.0	2.0
50	2.0	2.0
51	2.0	2.0
52	2.6	2.6
53	2.0	2.0
54	2.0	2.0
55	4.0	4.0
56	2.0	2.0
57	0	0
58	4.0	4.0
59	2.0	2.0
60	2.0	2.0
61	2.0	2.0
62	2.0	2.0
63	2.0	2.0
64	2.0	2.0
Q2001		
1(E)	0	0
2(B)	0	0
3(C)	0	0
4(E)	0	0
5(B)	0	0
6(C)	0	0
Q2002		
E	4.1	4.1
C	4.8	4.8
B	4.7	4.7
Q2004		
E	0	0
C	0	0
B	0.7	0.7

<DV MAIN>

MODE PIN NO.	REC	PLAY
IC3001	-	-
IC3002		
1	0	0.4
2	0	0
3	0	0
4	0.5	1.5
5	0.7	0
6	2.9	0
7	0	0
8	3.0	2.9
IC3003		
1	3.0	2.9
2	1.0	0.9
3	0	0
4	0	0
5	0	0
6	0.5	1.5
7	2.3	2.3
8	3.0	2.9
IC3004		
1	0.5	0
2	0.5	0
3	0	0
4	0.8	2.9
5	2.9	2.9
IC3006		
1	2.9	2.9
2	0	0
3	0	0
4	0	0
5	2.9	2.9
6	0	0
7	1.0	1.5
8	1.3	0.7
9	1.3	1.3
10	0	0
11	0	0
12	2.9	2.9
13	0	0
14	0	0
15	0.5	0.5
16	0	0
IC3007	-	-

<PRE/REC>

MODE PIN NO.	REC	PLAY
IC3501		
1	0	0
2	1.1	1.1
3	0	0
4	0	0
5	0	2.5
6	3.3	0
7	1.4	0
8	0	0
9	1.6	3.0
10	0	1.6
11	3.0	0
12	0	0
13	4.8	4.8
14	0	0
15	0	0
16	0	0
17	0	0
18	3.7	1.7
19	3.4	1.7
20	3.5	0
21	3.7	1.7
22	0	0
23	3.7	1.7
24	3.5	1.7
25	3.5	1.7
26	3.7	1.7
27	0	0
28	2.3	2.5
29	3.4	1.7
30	3.4	1.7
31	2.4	2.5
32	0	0
33	0	0
34	0	0
35	1.8	1.8
36	0.4	0
37	3.0	3.0
38	0	3.0
39	3.0	3.0
40	1.5	1.5
41	0	3.0
42	3.0	0
43	4.8	4.8
44	2.9	0
45	0	0
46	0	1.9
47	0	2.0
48	4.7	3.0
49	4.4	2.8
50	0.4	1.6
51	1.2	1.2
52	0.8	1.5
53	0	0
54	3.2	2.6
55	2.5	1.9
56	1.1	1.1
57	2.5	1.9
58	2.5	1.3
59	0	0
60	1.2	1.2
61	3.4	1.9
62	2.5	1.9
63	2.5	1.3
64	2.5	1.9

<V OUT>

MODE PIN NO.	REC	PLAY
IC3701		
1	0	0
2	2.3	2.3
3	0	0
4	0	0
5	0	0
6	0	0
7	1.9	1.9
8	0	0
9	2.3	2.3
10	0	0
11	2.0	2.0
12	2.2	2.2
13	4.8	4.8
14	1.8	1.8
15	1.9	1.9
16	4.8	4.8
Q3701		
1(E)	1.1	1.1
2(E)	1.2	0
3(B)	0.6	0.6
4(C)	0	0
5(B)	0	0.5
6(C)	0	0
Q3702		
1(E)	0	0
2(B)	0	0
3(C)	0	0
4(E)	4.7	0
5(B)	4.7	4.8
6(C)	0	0

<CAM DSP>

MODE PIN NO.	REC	PLAY
IC4201		
1	0	0
2	1.1	0
3	1.1	0
4	1.0	0
5	0.7	0
6	0.7	0
7	2.2	3.0
8	0.5	0
9	0.7	0
10	0.4	0
11	0	0
12	0	0
13	0	0
14	0	0
15	2.9	3.0
16	1.2	0
17	2.8	0
18	2.1	0
19	0	0
20	2.4	0
21	0	0
22	0	0
23	3.0	0
24	0	0
25	0	0
26	1.9	0
27	1.4	0
28	1.9	0
29	2.1	0
30	0	0
31	3.0	3.0
32	1.9	0
33	0.9	0
34	1.4	0
35	1.2	0
36	0	0
37	0	0
38	3.0	3.0
39	0	0
40	0	0
41	3.0	3.0
42	0	0
43	3.0	3.0
44	3.0	0
45	0	1.5
46	3.0	3.0
47	0	0
48	0	0
IC4202		
1	4.8	4.8
2	0	0
3	1.2	1.2
4	3.0	3.0
5	4.8	4.8
IC4301	-	-
IC4302		
1	0	0
2	0	1.4
3	1.4	0.9
4	0.9	0.9
5	0.9	0.9
6	0.9	0.9
7	0.8	0.8
8	1.2	1.2
9	1.2	1.3
10	1.8	1.9
11	1.0	1.1
12	1.2	1.0
13	1.2	1.1
14	1.3	1.1
15	1.3	1.4
16	0	0
17	2.7	2.6
18	2.9	2.9
19	0	3.0
20	0	0
21	3.0	3.0
22	2.7	2.7
23	2.7	2.7
24	0	0
25	1.3	1.5
26	1.5	1.4
27	1.4	1.3
28	1.3	1.3
29	1.2	1.2
30	1.8	1.8
31	1.5	1.5
32	1.4	1.3
33	1.1	1.1
34	1.2	1.3
35	1.1	0
36	1.1	1.2
37	1.6	1.6
38	0	0
Q4301		
1(E)	0.9	0.9
2(E)	0.9	0.9
3(B)	0	0
4(C)	0	0
5(B)	0	0
6(C)	0	0
Q4302		
1(E)	1.2	1.2
2(E)	0	0.9
3(B)	0	0
4(C)	0	0
5(B)	0.6	0.6
6(C)	0	0

<OP DRIVE>

MODE PIN NO.	REC	PLAY
IC4802		
1	2.9	2.9
2	2.6	2.6
3	2.6	2.6
4	0	0
5	2.6	2.6
6	2.6	2.6
7	2.6	2.6
8	4.7	4.7
IC4803		
1	1.0	1.0
2	0	0
3	0	0
4	0	0
5	2.6	2.6
6	2.6	2.6
7	2.4	3.3
8	4.7	4.8
IC4804		
1	2.2	0
2	2.4	3.0
3	2.4	2.9
4	0	0
5	1.8	3.0
6	1.8	3.0
7	1.2	0
8	4.7	4.8
IC4806		
1	2.4	3.0
2	2.4	3.0
3	2.4	3.0
4	0	0
5	3.0	3.0
6	0.6	0
7	0.6	0
8	3.0	3.0
IC4851		
1	0	0
2	0.6	0.6
3	0	0.4
4	0.4	0
5	0	0.4
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	0	0
21	0.7	0
22	0	0
23	4.8	4.8
24	0	0
25	0	0
26	0	0

MODE PIN NO.	REC	PLAY
27	4.8	4.8
28	0	0
29	0	0
30	0	0
31	3.0	3.0
32	0	0
33	0	0
34	1.3	1.5
35	3.0	3.0
36	1.4	1.4
37	1.4	1.4
38	3.1	3.1
Q4801		
E	0	0
C	2.3	2.3
B	1.0	1.0
Q4851		
E	0	0
C	3.8	3.8
B	0	0

<TG/VDRV>

MODE PIN NO.	REC	PLAY
IC5501		
1	-0.5	-0.7
2	2.4	0
3	2.9	0
4	2.9	2.9
5	0	0
6	2.9	2.9
7	0	0
8	0.5	0
9	0	0
10	2.9	2.9
11	1.4	0
12	2.9	2.9
13	0	0
14	1.2	0
15	0	0
16	2.9	2.9
17	2.2	0
18	2.2	0
19	2.2	0
20	0	0
21	0	0
22	0	0
23	0	0
24	2.9	2.9
25	1.3	0
26	3.0	3.0
27	0	0
28	1.2	1.8
29	0	0
30	1.3	1.5
31	0	0
32	0	0
33	2.9	2.9
34	1.5	0
35	1.2	0
36	2.9	0

MODE PIN NO.	REC	PLAY
37	2.9	0
38	3.0	3.0
39	0	0
40	0	0
41	-6.3	0
42	0	11.9
43	11.9	11.9
44	-6.2	11.9
45	-6.6	-6.7
46	-6.6	0
47	0	0
48	2.9	0

<REG>

MODE PIN NO.	REC	PLAY
IC6001		
1	8.0	8.0
2	10.4	10.4
3	0	0
4	0	0
IC6101		
1	3.1	3.1
2	3.1	3.1
3	3.1	3.1
4	1.5	1.5
5	3.1	3.1
6	0	0
7	1.3	1.3
8	11.0	11.0
9	1.0	1.0
10	1.2	1.2
11	2.1	2.1
12	0	0
13	0	0
14	0	0
15	0	0
16	0	0
17	0	0
18	0	0
19	2.2	2.2
20	0.9	0.9
21	0	0
22	2.2	2.2
23	1.0	1.0
24	0.6	0.6
25	1.0	1.0
26	0.5	0.5
27	1.0	1.0
28	0.8	0.8
29	1.0	1.0
30	0.9	0.9
31	0	0
32	0	0
33	0.5	0.5
34	0	0
35	0	0
36	0.5	0.5
37	0.8	0.8
38	0	0
39	1.0	1.0

MODE PIN NO.	REC	PLAY
40	0	0
41	2.4	2.4
42	1.1	1.1
43	0	0
44	2.1	2.1
45	2.1	2.1
46	2.1	2.1
47	8	8
48	1.0	1.0
49	1.1	1.1
50	2.1	2.1
51	11.0	11.0
52	0	0
53	10.2	10.2
54	9.4	9.4
55	4.7	4.7
56	6.1	6.1
57	9.3	9.3
58	7.9	7.9
59	0	0
60	11.0	11.0
61	0	0
62	10.3	10.3
63	1.3	1.3
64	1.0	1.0
Q6001		
E	0	0
C	0	0
B	3.0	3.0
Q6002		
D	10.4	10.4
S	0	0
G	0	0
Q6003		
D	0	0
S	4.1	4.1
G	0	3.1
Q6004		
E	11.0	11.0
C	3.0	3.0
B	10.4	10.4
Q6101		
D	0	0
S	0	0
G	0	0
Q6102		
D	0	0
S	0	0
G	3.0	3.0
Q6201		
D	3.0	3.0
S	11.0	11.0
G	7.9	7.9
Q6202		
E	0	3.0
C	2.5	2.5
B	2.3	2.3
Q6203		
1(D)	1.8	1.8
2(D)	1.8	1.8
3(G)	9.3	9.3
4(S)	11.0	11.0
5(D)	1.8	1.8

MODE PIN NO.	REC	PLAY
6(D)	1.8	1.8
Q6204		
D	4.8	4.8
S	11.0	11.0
G	6.2	6.2
Q6205		
E	4.8	4.8
C	0	0
B	4.8	4.8
Q6206		
E	0	0
C	4.8	4.8
B	0	0
Q6207		
E	0	0
C	4.8	4.8
B	0	0
Q6208		
1(D)	1.7	1.7
2(D)	1.7	1.7
3(G)	9.4	9.4
4(S)	11.0	11.0
5(D)	1.7	1.7
6(D)	1.7	1.7
Q6210		
1(D)	0.9	0.9
2(D)	0.9	0.9
3(G)	10.2	0
4(S)	11.0	11.0
5(D)	0.9	0.9
6(D)	0.9	0
Q6211		
D	0	0
S	11.0	11.0
G	4.7	4.7
Q6212		
1(E)	4.3	4.3
2(B)	4.8	4.8
3(C)	15.0	15.0
4(E)	0	4.3
5(B)	5.0	4.9
6(C)	14.4	14.4
Q6213		
E	15.0	15.0
C	11.9	11.9
B	14.4	14.4
Q6214		
E	0	0
C	15.0	15.0
B	0	-1.1
Q6215		
1(E)	-6.0	-6.1
2(B)	-6.5	-6.6
3(C)	-15.3	-15.3
4(E)	-6.1	-6.1
5(B)	-6.6	-6.7
6(C)	-13.3	-15.2
Q6216		
E	-13.9	-15.3
C	-6.6	-6.7
B	-13.9	-15.2

MODE PIN NO.	REC	PLAY
Q6217		
1(E)	0	0
2(B)	0	0
3(C)	0	0
4(E)	0	11.0
5(B)	11.0	11.0
6(C)	11.0	11.0
Q6701		
1(D)	0	0
2(D)	0	0
3(G)	11.0	11.0
4(S)	11.0	11.0
5(D)	0	0
6(D)	0	0

<JACK>

MODE PIN NO.	REC	PLAY
IC501		
1	1.9	1.9
2	1.9	1.9
3	1.9	1.9
4	0	0
5	1.9	1.9
6	1.9	1.9
7	1.4	1.4
8	4.8	4.8
IC502		
1	0	0
2	0	0
3	4.8	4.8
4	4.8	4.8
Q501		
E	0	0
C	4.2	4.2
B	-	-

<B/W VF>

MODE PIN NO.	REC	PLAY
IC7101	-	-
Q7101	-	-

<MONITOR>

MODE PIN NO.	EE
IC7601	
1	0
2	7.1
3	2.4
4	2.4
5	2.4
6	2.4
7	2.4
8	2.4
9	2.4
10	0
11	0
12	5.9
13	0
14	6.0
15	6.0
16	6.0
17	6.0
18	6.0
19	6.0
20	1.7
21	1.4
22	0
23	1.2
24	0.4
25	0
26	1.1
27	0.9
28	1.3
29	2.9
30	1.1
31	0
32	0.5
33	0
34	0
35	0
36	3.0
37	0
38	0
39	3.0
40	0.9
41	1.5
42	2.9
43	2.9
44	0
45	2.9
46	2.7
47	2.4
48	0
IC7602	
1	11.8
2	0.5
3	0.5
4	0
5	4.8
6	4.8
7	7.1
8	11.9
IC7603	
1	0.7
2	3.1
3	0
4	3.0

MODE PIN NO.	EE
5	3.0
6	0.7
7	0
8	0
IC7604	
1	1.0
2	3.0
3	2.3
4	1.0
5	3.1
6	0
7	0
8	0
9	1.0
10	0
11	0
12	1.0
13	0
14	3.0
Q7601	
E	-9.1
C	0
B	-8.6
Q7602	
E	0
C	0
B	-8.5
Q7603	
E	-8.6
C	0
B	-8.2
Q7604	
E	-8.6
C	-14.7
B	-9.1
Q7605	
E	2.9
C	2.9
B	0
Q7606	
E	0
C	0
B	2.9
Q7607	
1(E)	0
2(B)	6.3
3(C)	0
4(E)	6.3
5(B)	5.7
6(C)	11.9
Q7608	
E	0
C	0
B	3.1
Q7609	
E	0
C	4.7
B	0
Q7610	
E	4.8
C	1.4
B	4.7

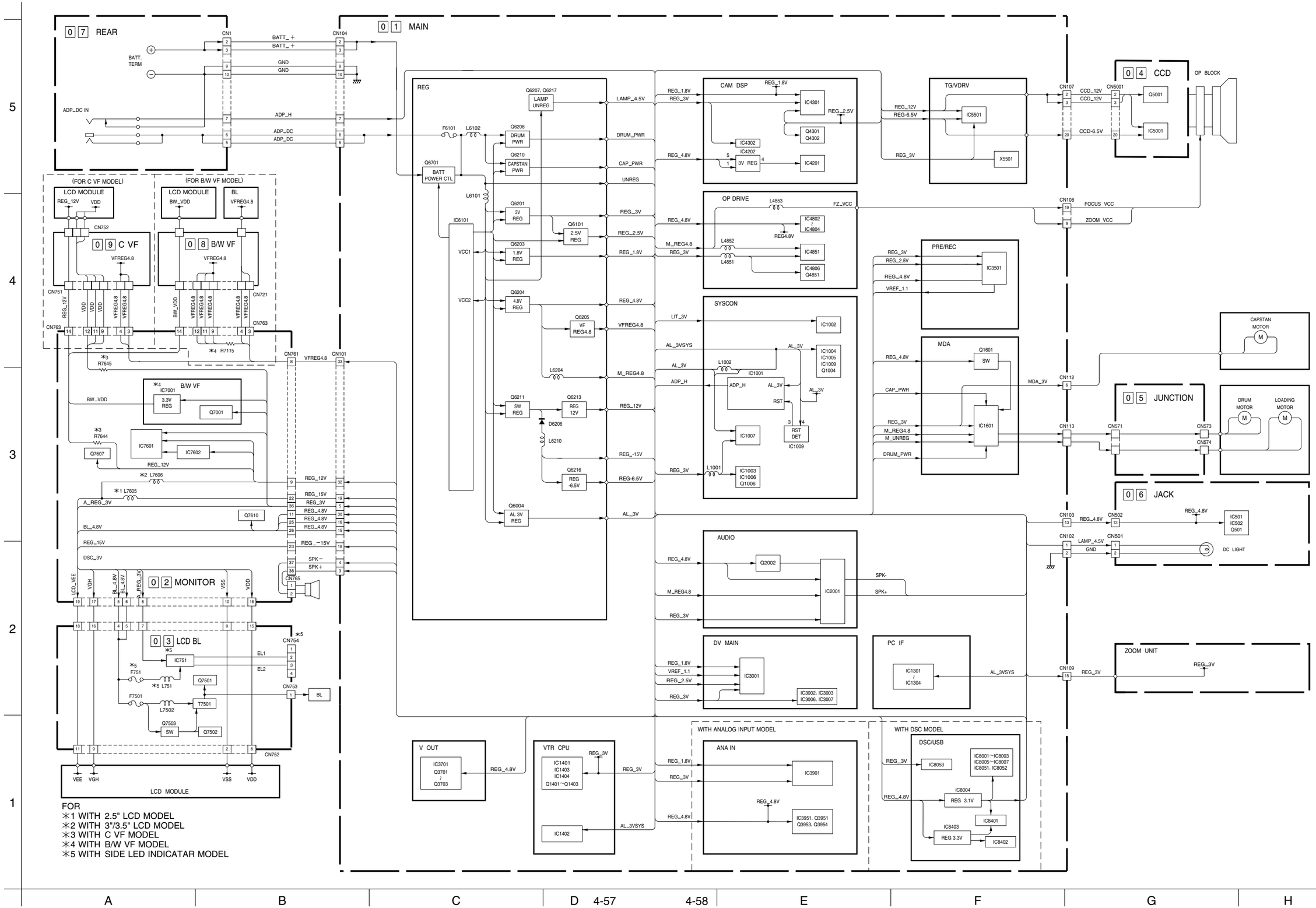
<LCD BL>

MODE PIN NO.	EE
IC751	
1	0
2	4.5
3	0
4	0
5	3.1
6	0
7	0
8	0
9	0
10	0
Q7501	
E	0
C	4.5
B	0.4
Q7502	
E	0
C	4.5
B	0.4
Q7503	
E	4.6
C	0
B	0
Q7504	
E	0
C	0
B	0.7

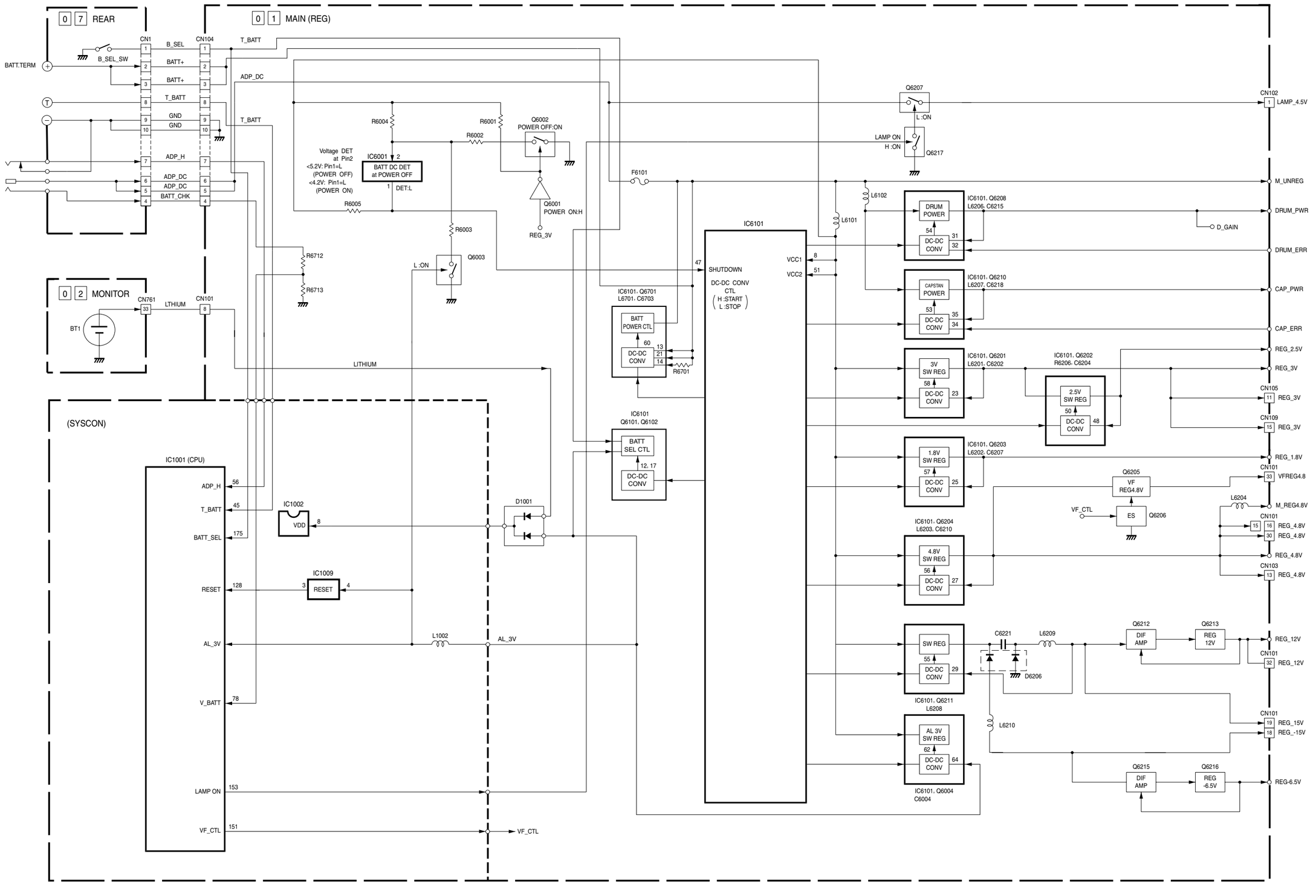
<CCD>

MODE PIN NO.	EE
Q5001	
E	0
C	8.1
B	0

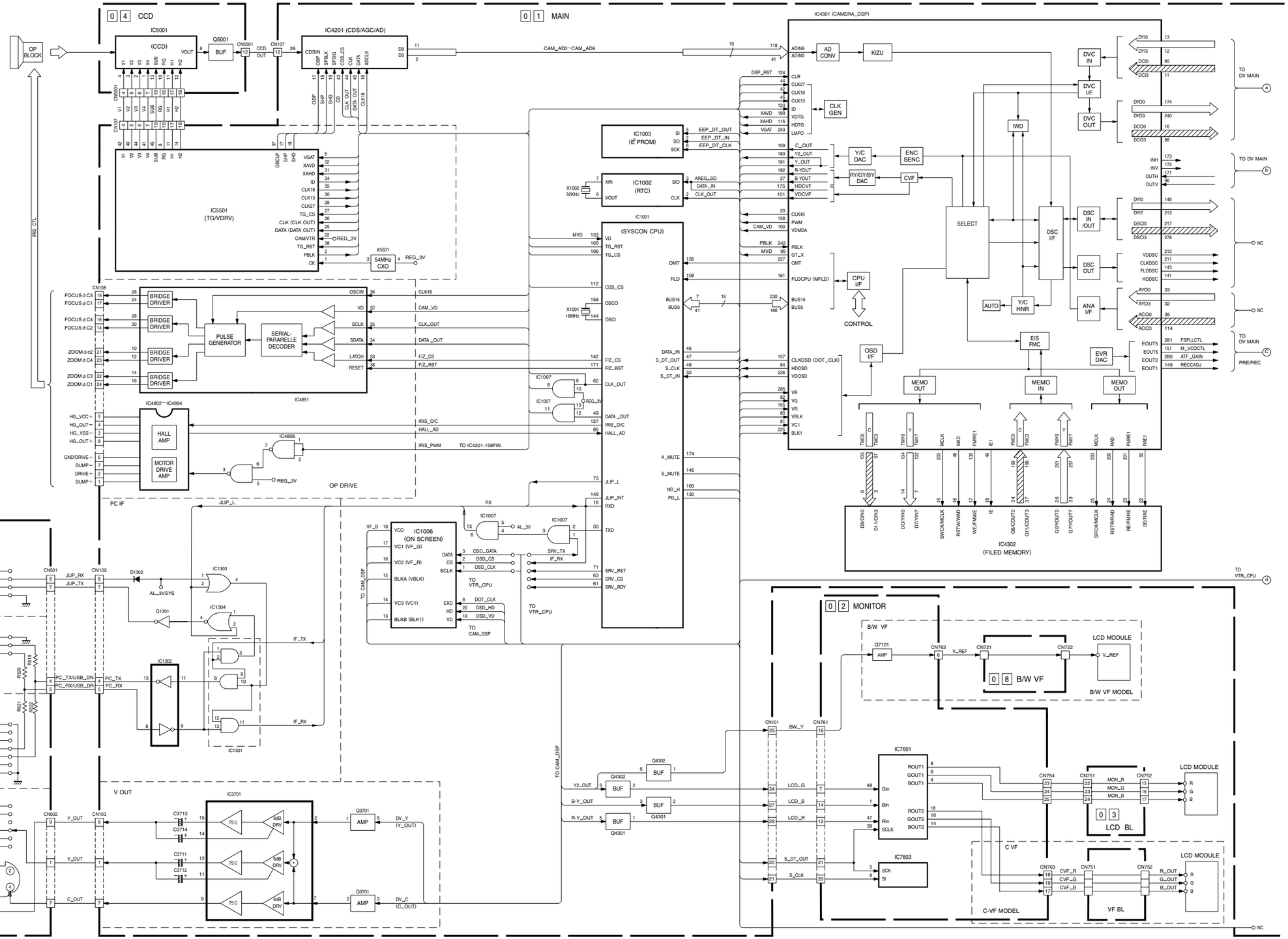
4.27 POWER SYSTEM BLOCK DIAGRAM



4.28 REGULATOR SYSTEM BLOCK DIAGRAM



4.29 VIDEO SYSTEM BLOCK DIAGRAM



A | B | C | D 4-61 4-62 | E | F | G | H

0 1 MAIN

IC3001 (DV MAIN)

VIDEO I/F (VBID DET RAM)
COMPRESS (DCT.VLC VLD WORK RAM)
OUTER ECC (ENC/DET)
RAM (SUB/AUX)
INNER ECC (ENC/DEC)
FORMATTER (Formatting Sync Detect ID Protect De-formatting)
RAM (CLOCK CONV)
D-RAM I/F
HOST CPU I/F
(DECK _ DSP)

YSO0 YSO3 BRSO0 BRSO3 OUTH OUTV YSI0 YSI3 BRSI0 BRSI3 INH INV CLK27 OSC27I

TO CAM_DSP (a)
TO CAM_DSP (b)
TO TG/VDRV
TO CAM_DSP (c)
TO VTR_CPU
AD0 AD15 DV_RST XRST DALE CPUALE DWE XCPUDSTB0 DRE XCPUDSTB1 DRWSEL XCPURW DV_CS XCPUCS DV_WATT CPUWAIT

PWMAUDIO RECCTL RECDATA RECCLK SPA HSP HID TRKREF FRREF
FSPLLCTL RECCTL HSE RECCLK SPAIN
TO VTR_CPU

IEE1394 LINK (ISO/ ASYNC FIFO)
AUDIO (WORK RAM PROGRAM RISC CORE)
TPA TPB XTPA XTPB
AILRCK AIBCK AIMCK AODAT0 AODAT1 DOLRCK DOBCK DODCK DODAT AIDAT

TO SYSCON (d)
NC

IC1304
(DSC/USB)
WITH DSC MODEL
IC8001
IC8007
X8001
R8003
IC2B51 IC2B52
P_CE/MMC_CS XIN XOUT SCLK CE1 SCK SI SO YIN B-Y R-Y IN AVD AVD(INT) FLD PORT3 P_VS2
CPU IF
ADDRESS BUS DATA BUS
CLKIN SID BS R/W BCL BCH DC HREQ HACK CS INT RST
DSC CPU IC8002
A0~A20 D0~D15
2M RAM IC8003
D0~A19 D0~D14 BYTE REG_3.1V
IC8006 A9
IC8007 IC8007 USB_CE FLASH_CE
IC8401 (USB)
A0~A7 AD0~AD7 RD WR RESET D+ D-
CE OE WE RY/BY RST REST

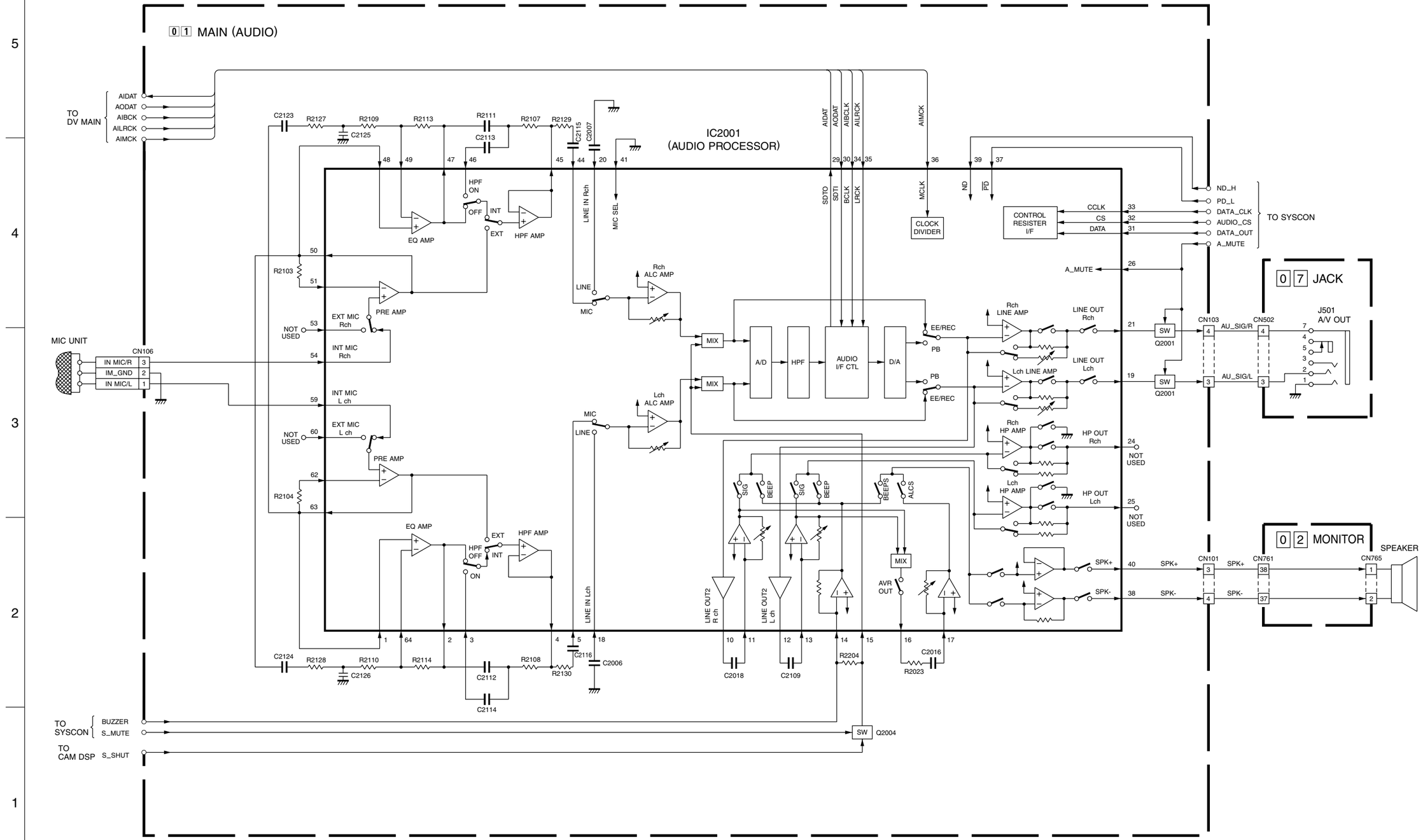
IC3901 (ANA IN)
(A/D. D/A CONV)
WITH ANALOG INPUT MODEL
YSI0 YSI3 CSI0 CSI3 YSO0 YSO3 CSO0 CSO3 OUTH OUTV INH INV ZCNT CSYNC HDOUT TBCCTL A_SYNC A_OSD_HD59 CLK27
YSOUT COUT CIN VYIN
Q3954 BUF Q3953 AMP C IN
Q3951 BUF IC3951 EXT_V_IN EXT_V_IN
TO V OUT

IC3501
(PRE/REC)
HID3 PBH RECH HID1 REC_DTA REC_CTL REC_CTL ENV_OUT PB_ENV RECCADT
HID3 PBH RECH HID1 REC_DATA R_CTL MONI..CHG PB_MONI AGCOUT REC_GAIN
TO VTR_CPU
TO JIG (CN105)
(TO CAM _ DSP)
Y2 X2 X1 Y1
2F 2S 1S 1F
HEAD
CN110

IC1401 (VTR _ CPU)
MONI_CHG VD EEP_WRITE EEP_CLK EEP_READ SYS_CLK SYS_IN SYS_OUT MSELECT READY RESET SRV_CS SRV_RDY SRV_RST TXD RXD OSCI
TO CAM_DSP
TO SYSCON (IC1003)
TO SYSCON
TO SYSCON (IC1001)
(IC1007)
TO TG/VDRV
DV_RST DV_CS DV_WAIT ADM0 ADM15 AS RWSEL RE WE CLK27SEL HIDIN HID1 PBH RECH HID_3 SPA FRP TSR
ADDT00 DALE DRWSEL DRE DWE
FR TR
TO IC3001 TO IC3001 TO IC3001 TO IC3201 TO IC3501 TO IC3501 TO IC3001
L3010 L3011
TPA+ TPA- TPB+ TPB-
DV INOUT
DV J101
TO IC3001
AIMK AILRCK AIBCK AIDAT AODAT
TO AUDIO
ND_H PD_L CLK_OUT DATA_OUT AUDIO_CS S_MUTE
TO AUDIO
S_SHUT
TO CAM_DSP

A B C D 4-63 4-64 E F G H

4.30 AUDIO SYSTEM BLOCK DIAGRAM



E. & O. E. No. 86613 (Sanwa)-MID225-/225 +/2L5

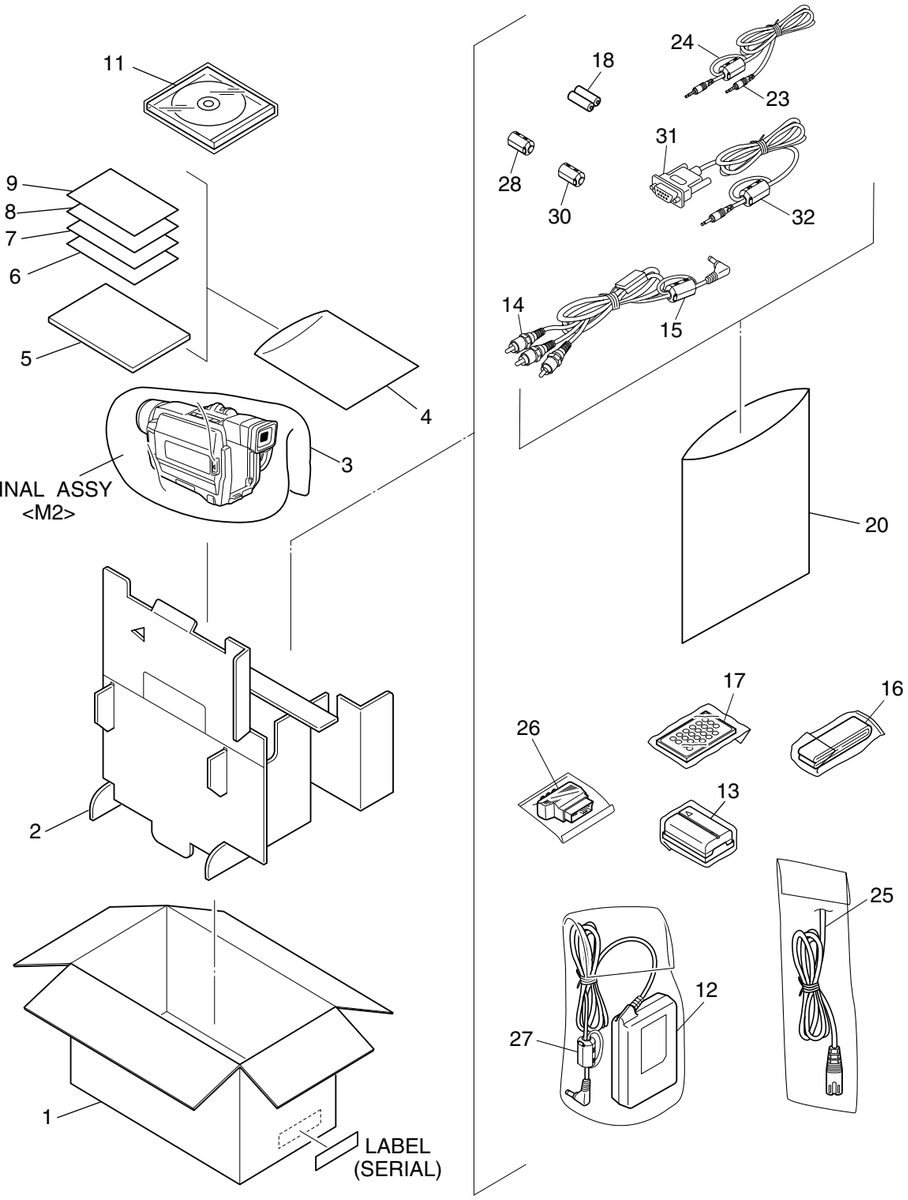
SECTION 5
PARTS LIST

SAFETY PRECAUTION

Parts identified by the ⚠ symbol are critical for safety. Replace only with specified part numbers.

5.1 PACKING AND ACCESSORY ASSEMBLY <M1>

The instruction manual to be provided with this product will differ according to the destination.



#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION

****

PACKING AND ACCESSORY ASSEMBLY <M1>

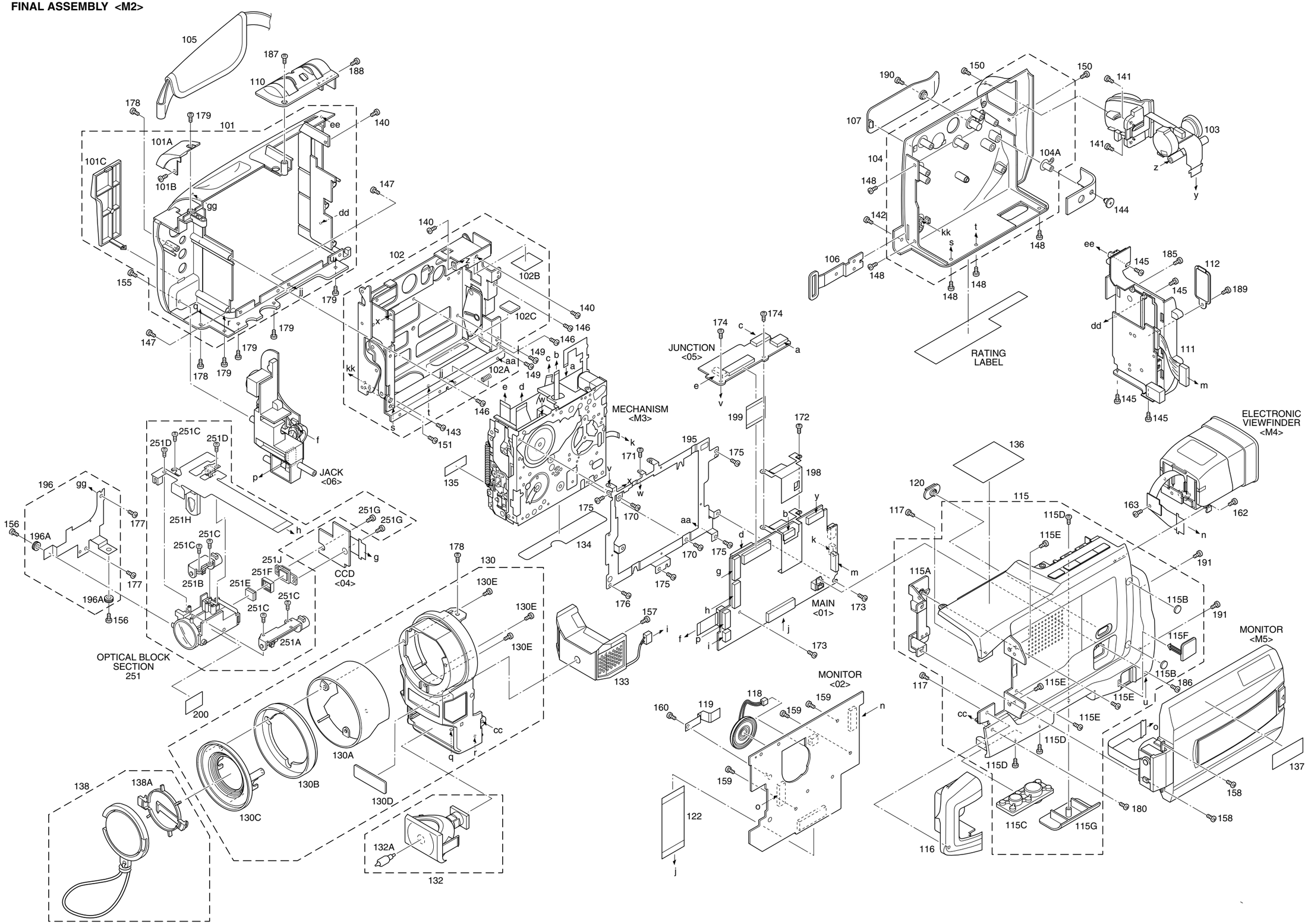
	1	LY30023-008A	POLY BAG
	2	LY32095-002A	PACKING CASE,C
		LY32095-003A	PACKING CASE,A,B
	3	LY32096-001A	CUSHION
	4	QPA02003006	POLY BAG,A,C
		YQM30061-3	POLY BAG,B
⚠	5	LYT0728-001A	INST.BOOK(EN),B
⚠		LYT0727-002B	INST.BOOK(GE),A,C
⚠		LYT0727-003B	INST.BOOK(FR),A,C
⚠		LYT0727-004A	INST.BOOK(DU),A,C
⚠		LYT0727-005B	INST.BOOK(SP),A,C
⚠		LYT0727-006A	INST.BOOK(IT),A,C
⚠		LYT0727-007A	INST.BOOK(DA),A,C
⚠		LYT0727-008A	INST.BOOK(FI),A,C
⚠		LYT0727-009A	INST.BOOK(SW),A,C
⚠		LYT0727-010A	INST.BOOK(NO),A,C
⚠		LYT0727-011A	INST.BOOK(RU),A,C
⚠		LYT0727-012A	INST.BOOK(CZ),A,C
⚠		LYT0727-013A	INST.BOOK(PO),A,C
⚠		LYT0727-014A	INST.BOOK(HU),A,C
⚠	6	LYT0737-001A	INST.BOOK(SOFT.5LANG),C
⚠		LYT0737-002A	INST.BOOK(SOFT.5LANG),C
⚠		LYT0737-003A	INST.BOOK(SOFT.RU),C
	7	LYT0378-003A	SHEET(AGREMENT),C
	8	LYT0194-001B	Q.CARD(JUK),B
	9	BT-54008-2	GUARANTY CARD,B
		BT-54013-2	WARRANTY CARD,A,C
	11	LY32210-002A	CD ROM,C
⚠	12	LY20688-013A	AC ADAPTER,AP-V10EG
⚠	13	LY31587-001A	BATTERY PACK,BN-V408U
	14	QAM0212-001	CABLE ASSY,AUDIO/VIDEO CABLE
	15	QQR0918-002	CORE FILTER
	16	LY20186-001A	SHOULDER STRAP
	17	LY20750-001A	REMOTE CONTROL UNIT,RM-V717U
	18	–	BATTERY,AAA(R03),X2
	20	QPA01703005	POLY BAG
	23	QAM0214-001	RM CABLE,C
		PEAC0428-150	CABLE ASSY,A,B
	24	QQR0491-002	CORE FILTER
⚠	25	QMPL120-190-JR	POWER CORD,A,C
⚠		QMPP110-190-JR	POWER CORD,B
	26	QAM0302-001	ADAPTOR PLUG
	27	QQR0490-002	CORE FILTER
	28	QQR0918-002	CORE FILTER,A,B
	30	QQR0491-002	CORE FILTER
	31	QAM0084-001	PC CABLE,C
	32	QQR0491-002	CORE FILTER,C

• INSTRUCTIONS

EN ..... ENGLISH
GE ..... GERMAN
FR ..... FRENCH
DU ..... DUTCH
SP ..... SPANISH
IT ..... ITALIAN
DA ..... DANISH
FI ..... FINNISH
SW ..... SWEDISH
NO ..... NORWEGIAN
RU ..... RUSSIAN
CZ ..... CZECH
PO ..... POLISH
HU ..... HUNGARIAN

MODEL	MARK
GR-DVL150EG	A
GR-DVL150EK	B
GR-DVL450EG	C

5.2 FINAL ASSEMBLY <M2>



# ⚠	REF No.	PART No.	PART NAME, DESCRIPTION

****

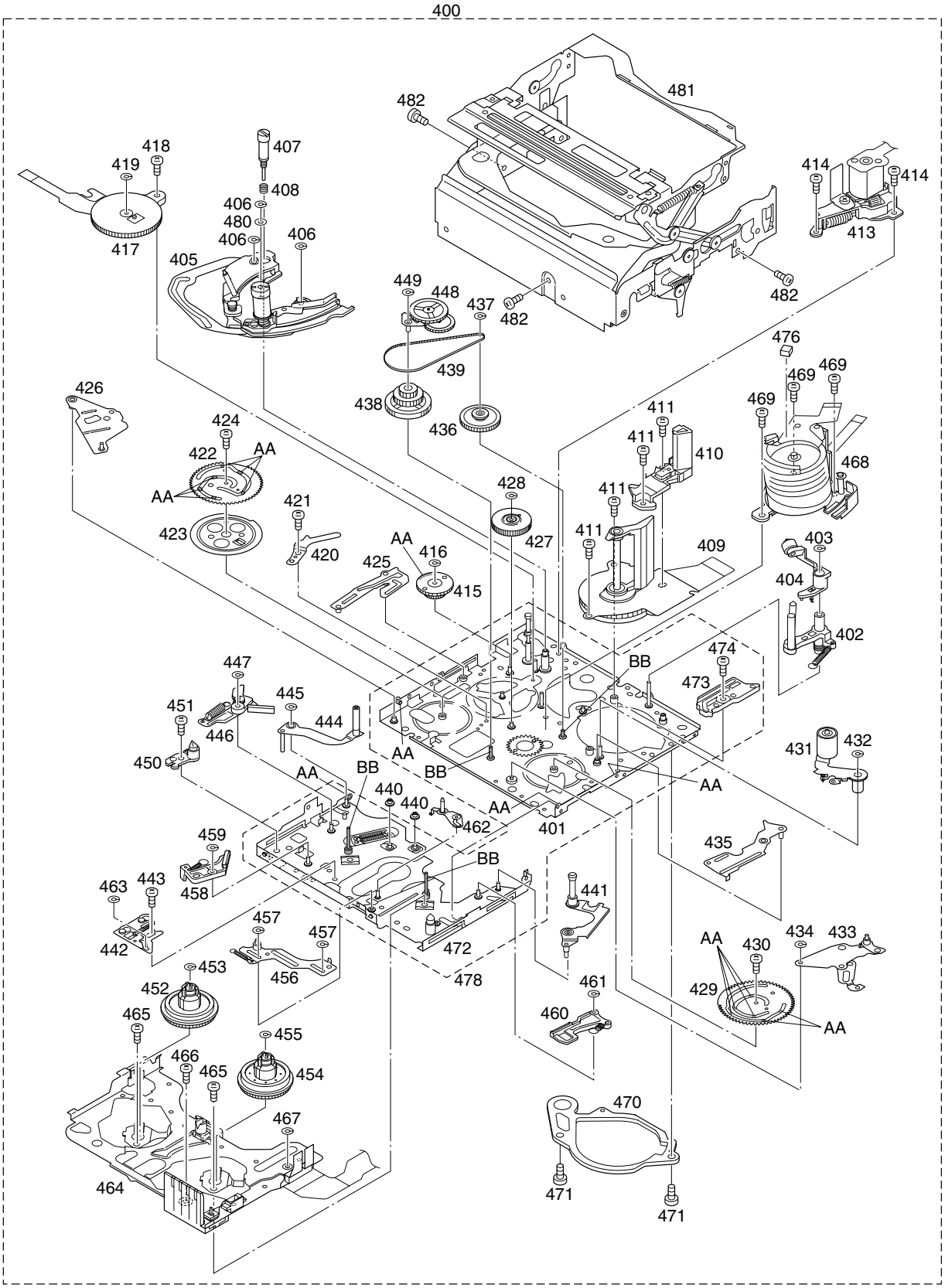
FINAL ASSEMBLY <M2>

	101	LY20706-001C	LOWER CASE ASSY
	101A	LY32098-001A	WINDOW(IR)
	101B	LY30018-063A	SPECIAL SCREW
	101C	LY32099-001C	COVER(JACK)
	102	LY20697-001A	ARM ASSY,A
		LY20697-001B	ARM ASSY,B,C
	102A	LY30001-023A	TENSION SPRING
	102B	LY30029-0C7A	SPACER(A)
	102C	LY30029-0E9A	SPACER(A)
	103	LY20693-001A	ZOOM UNIT
	104	LY20704-001A	CASSETTE COVER ASSY
	104A	LY40592-001A	CAP(GRIP BELT)
	105	LY20575-004B	GRIP BELT
	106	LY42891-001A	HOOK(GRIP)
	107	LY32092-013A	COVER(AJUST)
	110	LY32093-001A	COVER(ZOOM)ASSY
	111	LY20725-001A	REAR UNIT
	112	LY41691-001A	COVER(JIG)
	115	LY20707-003B	UPPER CASE(2.5)ASSY,A,B
		LY20717-003C	UPPER CASE3/3.5ASSY,C
	115A	LY32101-001A	BRACKET
	115B	LY40664-001A	SPACER,X2
	115C	LY31019-001A	BASE
	115D	LY30018-084A	SPECIAL SCREW,X3
	115E	LY30018-0A8A	SPECIAL SCREW,X4
	115F	LY42866-001A	CAP(DC JACK)
	115G	LY32110-001A	COVER
	116	LY32106-001A	COVER(HINGE)
	117	LY30018-084A	SPECIAL SCREW,X2
	118	QAS0048-001	SPEAKER
	119	LY42167-001A	PLATE(SPK)
	120	LY42919-001A	KNOB(SLIDE)
	122	QUQ105-4007AA	FFC WIRE
⚠	130	LY20711-003A	FRONT COVER ASSY
	130A	LY32111-002A	HOOD
	130B	LY32112-001A	RING
	130C	LY32113-001A	HOOD(SCREW)
	130D	LY42953-001A	MARK
	130E	LY30018-052A	SPECIAL SCREW,X3
	132	LY31617-002A	DC LIGHT ASSY
	132A	YQ44266	LAMP
	133	LY32114-001A	MICROPHONE
	134	LY40698-002A	LABEL(HOUSING)
	135	LY40699-002A	LABEL(PUSH)
	136	LY43093-003A	STICKER(TOP),A,B
		LY43093-011A	STICKER(TOP),C
	137	LY43094-002A	STICKER(SIDE)
	138	LY42182-002A	CAP(HOOD)ASSY
	138A	LY31627-001A	SPRING
	140	LY30018-084A	SPECIAL SCREW,X3
	141	LY30018-096A	SPECIAL SCREW,X2
	142	LY30018-038A	SPECIAL SCREW
	143	LY30018-084A	SPECIAL SCREW
	144	LY30018-0D1A	SPECIAL SCREW
	145	LY30018-084A	SPECIAL SCREW,X4
	146	LY30018-084A	SPECIAL SCREW,X3
	147	LY30018-038A	SPECIAL SCREW,X2
	148	LY30018-038A	SPECIAL SCREW,X5
	149	LY30018-084A	SPECIAL SCREW,X2
	150	LY30018-084A	SPECIAL SCREW,X2
	151	LY30018-023A	SPECIAL SCREW
	155	LY30018-084A	SPECIAL SCREW
	156	LY30019-029B	SPECIAL SCREW,X2
	157	LY30018-023A	SPECIAL SCREW
	158	LY30018-0D6A	SPECIAL SCREW,X2
	159	LY30018-023A	SPECIAL SCREW,X3
	160	LY30018-006B	SPECIAL SCREW
	162	LY30018-063A	SPECIAL SCREW
	163	LY30018-064A	SPECIAL SCREW
	170	LY30019-026A	SPECIAL SCREW,X2
	171	YQ43893-4	MINI SCREW
	172	YQ43893-4	MINI SCREW
	173	LY30019-033A	SPECIAL SCREW,X2
	174	QYSPSPT1730Z	SCREW,X2
	175	LY30018-066A	SPECIAL SCREW,X4
	176	LY30018-084A	SPECIAL SCREW
	177	LY30018-084A	SPECIAL SCREW,X2
	178	LY30018-084A	SPECIAL SCREW,X3
	179	LY30018-084A	SPECIAL SCREW,X5
	180	LY30018-092A	SPECIAL SCREW
	185	LY30018-065A	SPECIAL SCREW
	186	LY30018-006B	SPECIAL SCREW
	187	LY30018-092A	SPECIAL SCREW
	188	LY30018-065A	SPECIAL SCREW
	189	LY30018-037A	SPECIAL SCREW
	190	LY30018-037A	SPECIAL SCREW
	191	LY30018-084A	SPECIAL SCREW,X2
	195	LY20696-001A	BRACKET(MECHA)
	196	LY42846-001A	BKT(OP) ASSY
	196A	LY42796-001A	BUSH,X2
	198	LY32081-001A	SHIELD PLATE
	199	WJT0044-001A	E-CARD WIRE,MAIN CN113-JUNC CN571
	200	LY43092-001A	PLATE

– OPTICAL BLOCK SECTION –

	251	J7A-233A	OPTICAL BLOCK ASSY
	251A	LY30723-001B	ZOOM MOTOR
	251B	LY30724-001B	FOCUS MOTOR
	251C	LY30727-002A	SCREW,X5
	251D	LY30727-001A	SCREW,X2
	251E	LY42936-001A	OPTICAL LPF
	251F	LY31639-001A	SPACER RUBBER
	251G	QYSPSGU1750Z	SCREW,X2
	251H	LY32160-001A	IRIS MOTOR
	251J	YS40168F	CCD BASE ASSY

5.3 MECHANISM ASSEMBLY <M3>



Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-P	AA
Oil	YTU94027	BB

NOTE: The section marked in **AA** and **BB** indicate lubrication and greasing areas.

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION

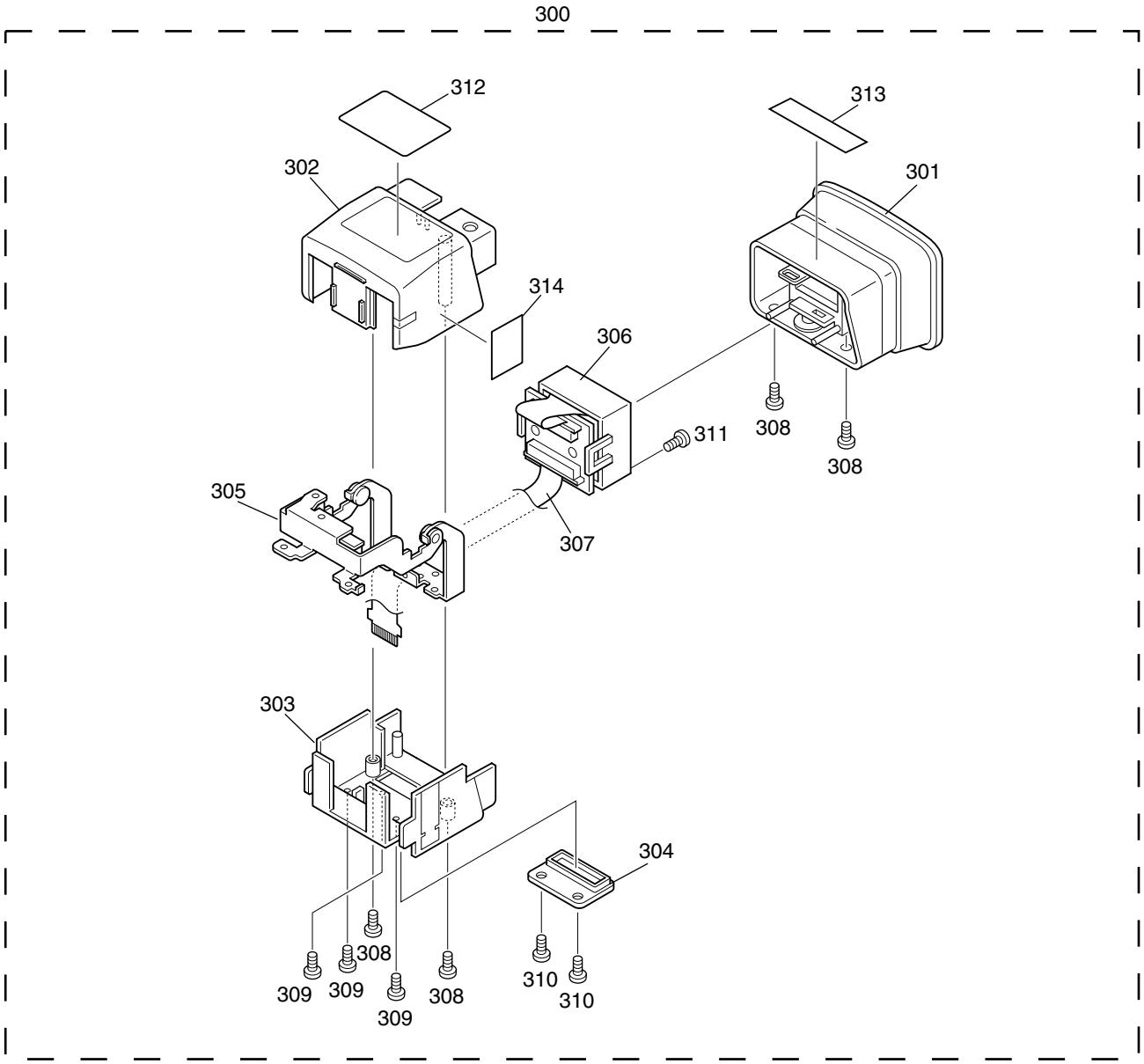
****

MECHANISM ASSEMBLY <M3>

400	YMA0025H	MECHA(A)ASSY
401	LY10077-001M	MAIN DECK ASSY
402	LY30436-001G	SLANT POLE ARM ASSY
403	YQ44246	SLIT WASHER
404	LY30438-001B	CLEANER ARM ASSY
405	LY10080-001V	RAIL ASSY
406	YQ44246	SLIT WASHER,X3
407	LY40353-001D	GUIDE ROLLER(S)ASSY
408	LY30002-006C	COMPRESSION SPRING
409	QAR0026-002	CAPSTAN MOTOR
410	LY30504-001C	CATCHER(T)ASSY
411	YQ43893	MINI SCREW,X4
413	LY30448-001H	MOTOR BKT ASSY
414	YQ43893	MINI SCREW,X2
415	LY30449-001C	WORM WHEEL
416	YQ44246	SLIT WASHER
417	LY40496-001C	ROTARY ENCODER
418	YQ43893	MINI SCREW
419	YQ44246	SLIT WASHER
420	LY40614-001B	GEAR HOLDER
421	YQ43893-6	MINI SCREW
422	LY30450-001C	MAIN CAM
423	LY30840-001A	BRAKE CTL PLATE
424	YQ43893	MINI SCREW
425	LY40373-001C	TC LEVER ASSY
426	LY30452-001G	SLIDE LEVER ASSY
427	LY30454-001A	CONNECT GEAR
428	YQ44246	SLIT WASHER
429	LY30455-001B	SUB CAM
430	YQ43893	MINI SCREW
431	LY30456-001F	PINCHROLLER ARM ASSY
432	YQ44246	SLIT WASHER
433	LY30459-001A	CHARGE ARM ASSY
434	YQ44246	SLIT WASHER
435	LY40387-001D	BC LEVER ASSY
436	LY40389-001D	REEL DRIVE PULLEY ASSY
437	YQ44246-2	SLIT WASHER
438	LY40391-002B	CENTER GEAR ASSY
439	LY40396-001A	TIMING BELT
440	LY40413-001A	COLLAR,X2
441	LY30468-001E	GUIDE ARM ASSY
442	LY30618-001C	SLIDE GUIDE PLATE ASSY
443	YQ43893-2	MINI SCREW
444	LY40420-001J	TENSION ARM ASSY
445	YQ44246	SLIT WASHER
446	LY30471-001D	PAD ARM ASSY
447	YQ44246	SLIT WASHER
448	LY40432-001H	IDLER ARM ASSY
449	YQ44246-2	SLIT WASHER
450	LY30476-001A	GUIDE PIN(S)
451	YQ43893	MINI SCREW
452	LY40441-001B	REEL DISK(SUPPLY)ASSY
453	YQ44246	SLIT WASHER
454	LY40443-001B	REEL DISK(TAKE-UP)ASSY
455	YQ44246	SLIT WASHER
456	LY30477-001F	CTL PLATE ASSY
457	YQ44246	SLIT WASHER,X2
458	LY40444-001E	LOADING BRAKE ASSY
459	YQ44246	SLIT WASHER

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION
460	LY40452-001C	SUB BRAKE ASSY
461	YQ44246	SLIT WASHER
462	LY30479-001E	RELEASE GUIDE ASSY
463	YQ44246	SLIT WASHER
464	LY20146-001H	REEL COVER ASSY
465	YQ43893-4	MINI SCREW,X2
466	YQ43893	MINI SCREW
467	YQ44246	SLIT WASHER
468	YDV2086K	DRUM ASSY
469	YQ43893	MINI SCREW,X3
470	LY20138-001D	PWB HOLDER
471	YQ43893	MINI SCREW,X2
472	LY10082-001L	SLIDE DECK ASSY
473	LY30462-001B	LOADING GUIDE
474	YQ43893	MINI SCREW
476	LY30016-0M1A	SPACER-A
478	LY30496-001W	DECK ASSY
480	LY41573-001A	WASHER
481	LY30483-001Q	CASSETTE HOUSING ASSY
482	YQ43893-4	MINI SCREW,X3

5.4 ELECTRONIC VIEWFINDER ASSEMBLY <M4> [GR-DVL450EG]



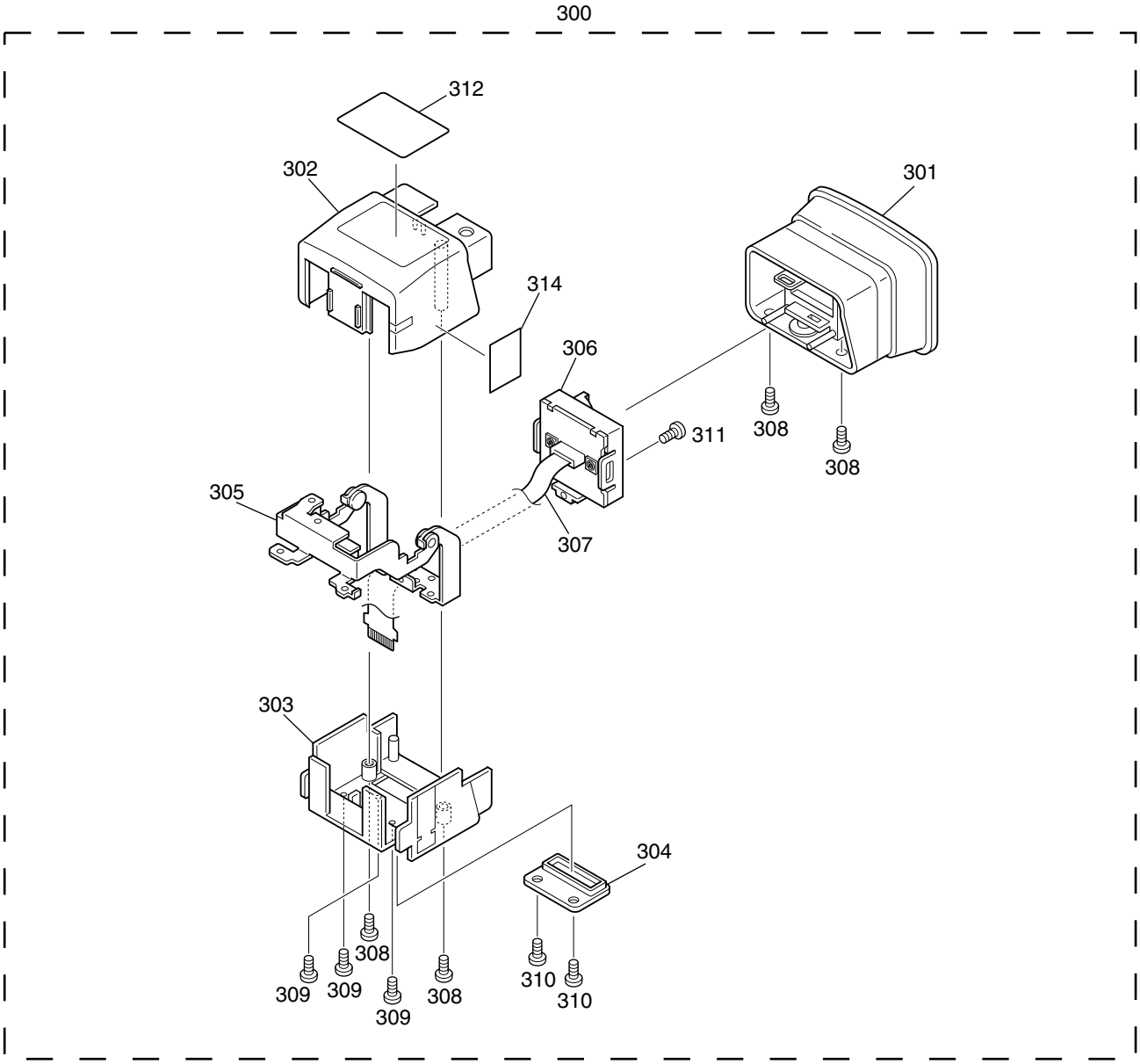
#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION

****

ELECTRONIC VIEWFINDER ASSEMBLY <M4>

		300	LY20712-002B	VF ASSY
		301	PTY20712-001	EYE PIECE ASSY
		302	PTY20712-011	TOP CASE SUB ASSY
		303	PTY20712-021	BOTTOM CASE
		304	PTY20712-022	CAP(VF)
		305	PTY20712-031	HINGE ASSY
		306	PTY20712-041	LCD ASSY
		307	QAL0287-001	FPC
		308	LY30018-063A	SPECIAL SCREW,X4
		309	LY30018-055A	SPECIAL SCREW,X3
		310	LY30018-035A	SPECIAL SCREW,X2
		311	PTY20712-051	SCREW
		312	LY41701-002A	SHEET(CAUTION)1
		313	LY40074-001A	LABEL/COLOR
		314	LY43041-002A	LABEL(VF)

5.4 ELECTRONIC VIEWFINDER ASSEMBLY <M4> [GR-DVL150EG/EK]



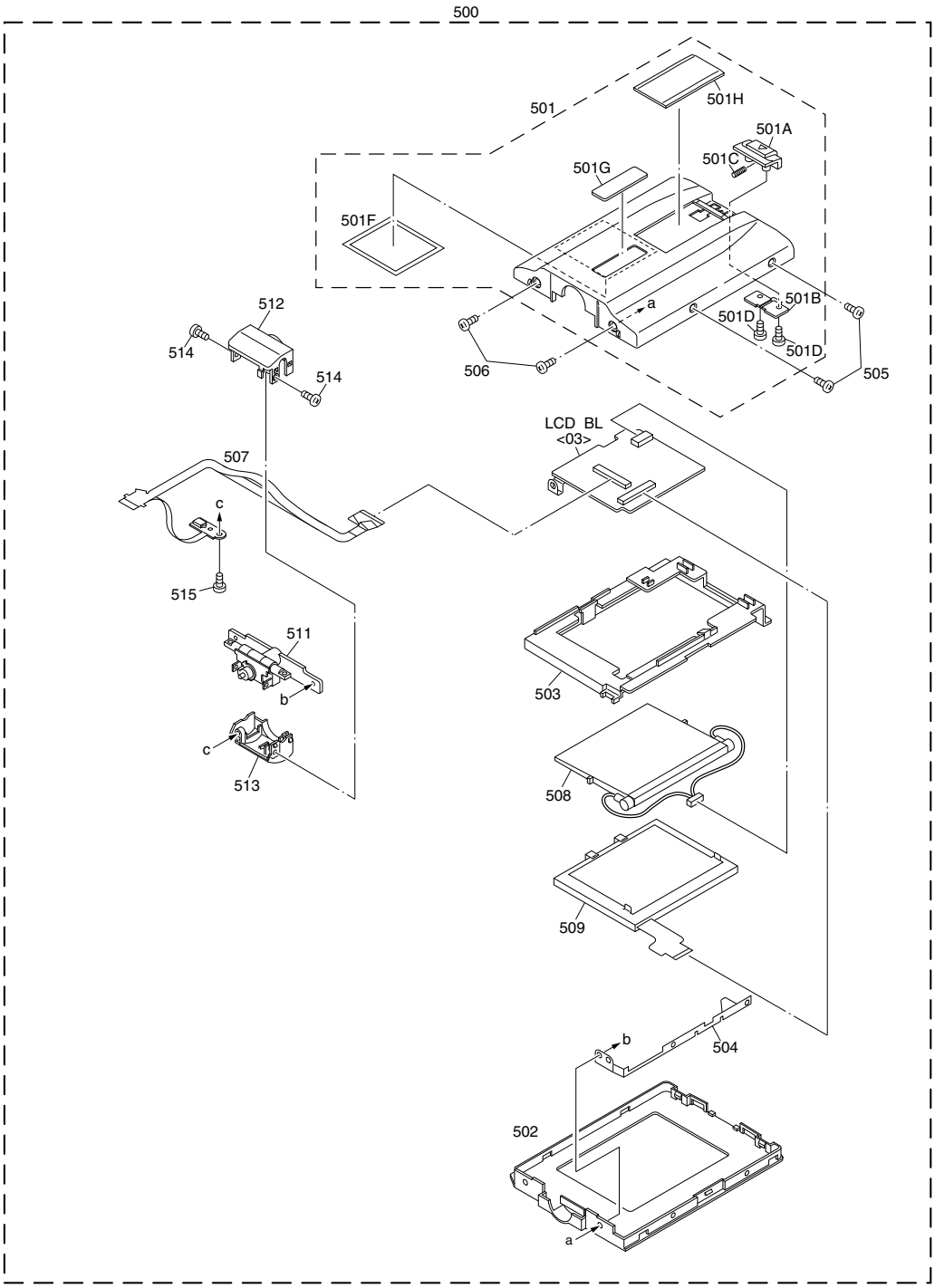
#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION

****

ELECTRONIC VIEWFINDER ASSEMBLY <M4>

300	LY20744-002B	VF UNIT,A
	LY20744-003A	VF UNIT,B
301	PTY20744-001	EYE PIECE ASSY
302	PTY20712-011	TOP CASE SUB ASSY
303	PTY20712-021	BOTTOM CASE
304	PTY20712-022	CAP(VF)
305	PTY20712-031	HINGE ASSY
306	PTY20744-041	LCD ASSY
307	QAL0288-001	FPC
308	LY30018-063A	SPECIAL SCREW,X4
309	LY30018-055A	SPECIAL SCREW,X3
310	LY30018-035A	SPECIAL SCREW,X2
311	PTY20744-051	SCREW
312	LY41701-002A	SHEET(CAUTION)1
314	LY43041-002A	LABEL(VF),A

5.5 MONITOR ASSEMBLY <M5> [GR-DVL150EG/EK]



#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION

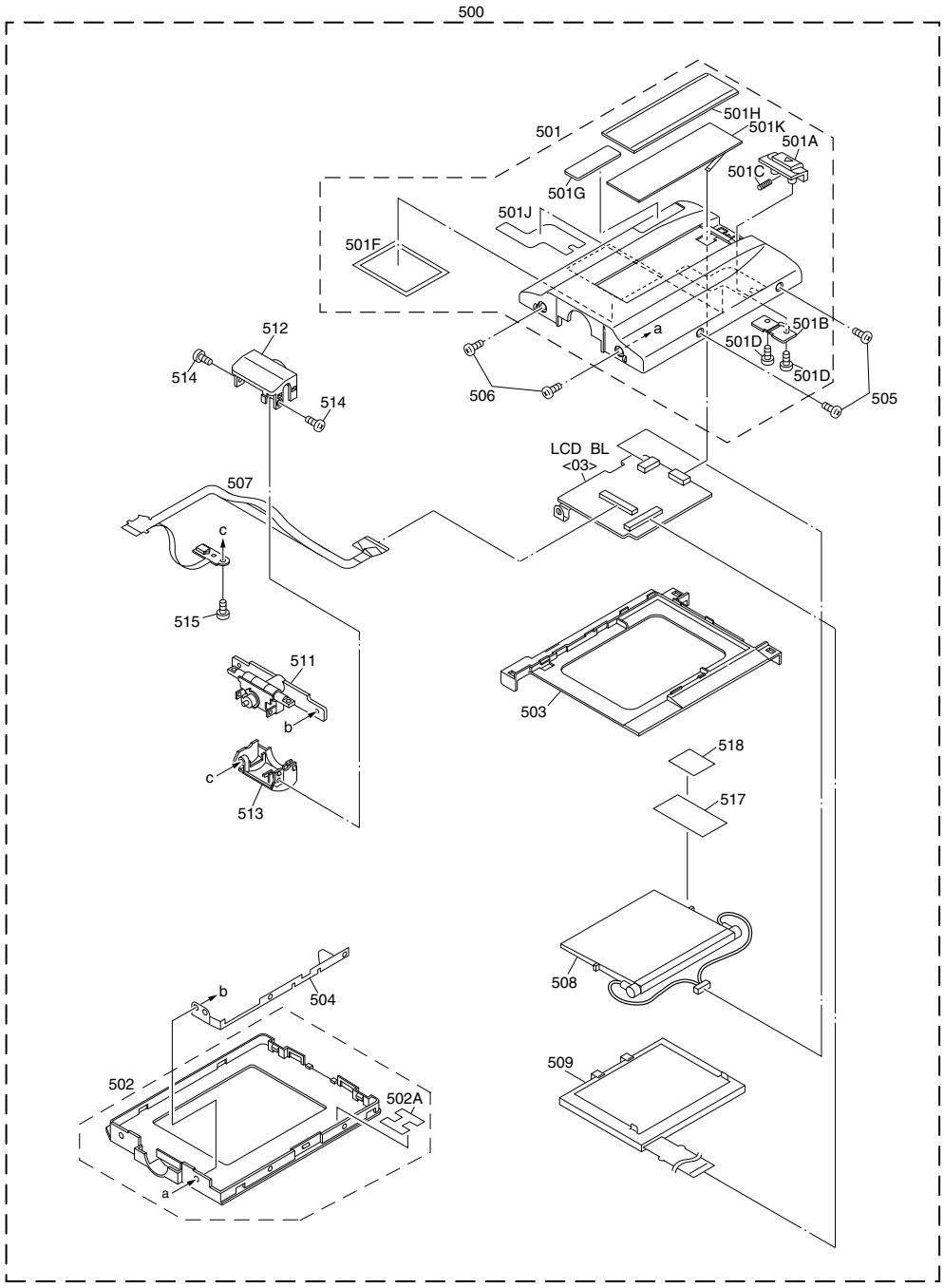
****

MONITOR ASSEMBLY <M5>

⚠	500	LYH20246-008B	MONITOR ASSY
⚠	501	LY20702-002B	MONITOR COVER(2.5)ASSY
	501A	LY31620-001A	KNOB(LOCK 1)
	501B	LY42180-001A	KNOB(LOCK 2)
	501C	LY30002-044A	COMPRESSION SPRING
	501D	LY30018-084A	SPECIAL SCREW,X2
	501F	LY40559-001A	SHIELD SHEET
	501G	LY42883-001A	MARK
	501H	LY32087-001B	WINDOW

#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION
		502	LY10264-001A	MONITOR CASE(2.5)
		503	LY20674-001A	HOLDER(2.5)
		504	LY31622-001A	BRACKET(EARTH)
		505	QYSPSPT1730R	SCREW,X2
		506	QYSLSP2040D	SCREW,X2
		507	LY31743-001A	MONITOR FPC ASSY
		508	QLL0093-001	BACK LIGHT
		509	QLD0154-001	LCD MODULE
		511	LY32079-001A	HINGE ASSY
		512	LY32088-001A	HINGE COVER(1)
		513	LY32089-001A	HINGE COVER(2)
		514	LY30018-058A	SPECIAL SCREW,X2
		515	LY30018-023A	SPECIAL SCREW

5.5 MONITOR ASSEMBLY <M5> [GR-DVL450EG]



#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION

****

MONITOR ASSEMBLY <M5>

	⚠	500	LYH20246-012A	MONITOR ASSY
	⚠	501	LY20721-003A	MONITOR COVER(3.5)ASSY
		501A	LY31620-001A	KNOB(LOCK 1)
		501B	LY42180-001A	KNOB(LOCK 2)
		501C	LY30002-044A	COMPRESSION SPRING
		501D	LY30018-011A	SPECIAL SCREW,X2
		501F	LY40559-001A	SHIELD SHEET
		501G	LY42883-001A	MARK
		501H	LY32121-003A	WINDOW
		501J	LY42386-001A	EARTH MON
		501K	LY42193-001A	EL(WINDOW)
		502	LY20598-002A	MONITOR CASE ASSY
		502A	LY42388-001A	EARTH MON(2)
		503	LY20568-001A	HOLDER(3.5PWB)
		504	LY31622-001A	BRACKET(EARTH)
		505	QYSPSPT1730R	SCREW,X2
		506	QYSLSP2040D	SCREW,X2
		507	LY31743-001A	MONITOR FPC ASSY
		508	QLL0081-001	BACK LIGHT
		509	QLD0096-002	LCD MODULE
		511	LY32079-001A	HINGE ASSY
		512	LY32088-001A	HINGE COVER(1)
		513	LY32089-001A	HINGE COVER(2)
		514	LY30018-058A	SPECIAL SCREW,X2
		515	LY30018-023A	SPECIAL SCREW
		517	LY30029-0A5A	SPACER(A)
		518	PU59915-105	#500SPACER0.01

5.6 ELECTRICAL PARTS LIST

MODEL	MARK
GR-DVL150EG	A
GR-DVL150EK	B
GR-DVL450EG	C

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION
**********		

MAIN BOARD ASSEMBLY <01>

PW	YB10313PA-03	MAIN BOARD ASSY,A
	YB10313PA-04	MAIN BOARD ASSY,B,C
IC1001	UPD703039F1-A03	IC(MICRO C ROM)
	or UPD70F3040F1A03	IC(MICRO C ROM)
IC1002	RS5C314	IC
IC1003	AT25160N-10SC-X	IC
	or X25170S8I-2.5-X	IC
	or 25LC160-I/SN-X	IC
IC1004	TC75S56FU	IC
IC1005	TC7S00FU	IC
	or SN74AHC1G00K	IC
IC1006	MB90097PFV139	IC(MICRO C ROM)
IC1007	TC74VHC08FT	IC(DIGITAL)
	or SN74LV08APW	IC
IC1009	IC-PST9323U-X	IC
IC1301	SN74LV08APW	IC
	or TC74VHC08FT	IC(DIGITAL)
IC1302	MAX3221CAE	IC
IC1303	TC7S32FU	IC(DIGITAL)
	or SN74AHC1G32K	IC
IC1304	TC7S02FU	IC(DIGITAL)
	or SN74AHC1G02K	IC
IC1401	YQ44882A	CSP IC ASSY
IC1402	TC7W66FK	IC
IC1404	TC7W14FU	IC(DIGITAL)
	or SN74AHC2G14T	IC
IC1601	BD6630KV	IC
IC2001	AK4560AVQ	IC
IC3001	JCY0133	IC
IC3002	JCY0136	IC
IC3003	TLC2940IPW	IC
IC3004	SN74AHC1G04K	IC
IC3006	JCY0164	IC
IC3007	SN74AHC2G53T	IC
	TC7SL00FU	IC(DIGITAL)
IC3501	JCY0132	IC
IC3701	BA7665FS	IC
IC4201	HD49326BF	IC
IC4202	MM1385HN	IC
IC4301	JCY0150	IC
IC4302	TMS4C2973-28-X	IC
IC4802	TA75W01FU	IC
IC4803	TA75W01FU	IC
IC4804	UPC358G2/5/-W	IC
IC4806	TC7W00FK	IC
IC4851	UPD16879GS	IC
IC5501	JCY0117	IC
IC6001	S-80842ANNP-W	IC
IC6101	FA3698F	IC
Q1001	DTC124EE	TRANSISTOR
Q1002	2SC4617/RS/-X	TRANSISTOR
Q1003	DTC143EE	TRANSISTOR
Q1004	DTA114EE	TRANSISTOR
	or PDTA114EE	TRANSISTOR
	or RN2102	TRANSISTOR
Q1005	DTC144EE	TRANSISTOR
	or PDTC144EE	TRANSISTOR
	or RN1104	TRANSISTOR
	or UN9213J	TRANSISTOR
Q1006	DTA114EE	TRANSISTOR
	or PDTA114EE	TRANSISTOR
	or RN2102	TRANSISTOR
Q1007	DTC144EE	TRANSISTOR
	or PDTC144EE	TRANSISTOR
	or RN1104	TRANSISTOR
	or UN9213J	TRANSISTOR
Q1301	2SC4617/RS/-X	TRANSISTOR
Q1401	DTA114EE	TRANSISTOR
	or PDTA114EE	TRANSISTOR
	or RN2102	TRANSISTOR
Q1402	UMC3N	TRANSISTOR
Q1403	UMC3N	TRANSISTOR
Q1404	DTC144EE	TRANSISTOR
	or PDTC144EE	TRANSISTOR
	or RN1104	TRANSISTOR
	or UN9213J	TRANSISTOR
Q1601	UMC3N	TRANSISTOR
Q2001	UMX1N	PAIR TRANSISTOR
Q2002	2SC4617/RS/-X	TRANSISTOR
Q2004	2SC4617/RS/-X	TRANSISTOR
Q3701	UMT2N	PAIR TRANSISTOR
Q3702	UMZ1N	PAIR TRANSISTOR
Q4301	UMT2N	PAIR TRANSISTOR
Q4302	UMT2N	PAIR TRANSISTOR
Q4801	2SC4655/BC/-X	TRANSISTOR
Q4851	2SC4617/RS/-X	TRANSISTOR
Q6001	DTC144EE	TRANSISTOR
	or PDTC144EE	TRANSISTOR
	or RN1104	TRANSISTOR
	or UN9213J	TRANSISTOR
Q6002	2SK3019	MOS FET
Q6003	2SJ347	MOS FET
Q6004	2SB1121/TU/-X	TRANSISTOR
Q6101	2SK3019	MOS FET
Q6102	2SK3019	MOS FET
Q6201	NDS352AP	MOS FET
Q6202	2SA1577/RS/-X	TRANSISTOR
Q6203	SSM6J07FU	MOS FET
Q6204	CPH3304	MOS FET
Q6205	CPH3101	TRANSISTOR
Q6206	2SC4617/RS/-X	TRANSISTOR
Q6207	2SD1621/TU/-X	TRANSISTOR
Q6208	SSM6J07FU	MOS FET
Q6210	SSM6J07FU	MOS FET
Q6211	NDS352AP	MOS FET
Q6212	HN1C01FU/G/-X	PAIR TRANSISTOR
	or PUMX1	PAIR TRANSISTOR
Q6213	2SA1577/RS/-X	TRANSISTOR
Q6214	DTC144EE	TRANSISTOR
	or PDTC144EE	TRANSISTOR
	or RN1104	TRANSISTOR
	or UN9213J	TRANSISTOR
Q6215	HN1A01FU/G/-X	PAIR TRANSISTOR
	or PUMT1	PAIR TRANSISTOR
Q6216	2SC4617/RS/-X	TRANSISTOR
Q6217	UMZ1N	PAIR TRANSISTOR
Q6701	TPC6102	MOS FET
D1001	DA221	DIODE
D1302	RB501V-40-X	SB DIODE
D1602	DAP222	DIODE
D1603	DAP222	DIODE

# ⚠	REF No.	PART No.	PART NAME, DESCRIPTION	
	D1604	DAP222	DIODE	
	D3001	EC2C01C	VARI CAP DIODE	
	D3002	EC2C01C	VARI CAP DIODE	
	D3003	EC2C01C	VARI CAP DIODE	
	D5501	1SS355	DIODE	
⚠	D6002	RB715F	SB DIODE	
	D6201	EP10LA03	SB DIODE	
	D6202	EP10LA03	SB DIODE	
	D6203	EP10LA03	SB DIODE	
	D6204	EP10LA03	SB DIODE	
	D6205	EP10LA03	SB DIODE	
	D6206	1SS383	SB DIODE	
	D6207	MA8091/L/-X	ZENER DIODE	
	D6701	CRS09	SB DIODE	
	D6702	CRS09	SB DIODE	
	R1001	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
	R1002	NRSA6AJ-224W	MG RESISTOR	220kΩ,1/16W
	R1003	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
	R1004	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
	R1005	NRSA6AJ-153W	MG RESISTOR	15kΩ,1/16W
	R1006	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
	R1007	NRSA6AJ-334W	MG RESISTOR	330kΩ,1/16W
	R1008	NRSA6AJ-561W	MG RESISTOR	560Ω,1/16W
	R1009	NRSA6AJ-151W	MG RESISTOR	150Ω,1/16W
	R1010	NRSA6AJ-221W	MG RESISTOR	220Ω,1/16W
	R1011	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
	R1012	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R1013	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
	R1014	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
	R1015	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W
	R1016	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W
	R1017	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
	R1018	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
	R1019	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
	R1020	NRSA6AJ-331W	MG RESISTOR	330Ω,1/16W
	R1021	NRSA6AJ-331W	MG RESISTOR	330Ω,1/16W
	R1022	NRSA6AJ-331W	MG RESISTOR	330Ω,1/16W
	R1023	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
	R1024	NRSA6AJ-823W	MG RESISTOR	82kΩ,1/16W
	R1025	NRVA6AD-623W	CMF RESISTOR	62kΩ,1/16W
	R1026	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
	R1027	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
	R1028	NRSA6AJ-185W	MG RESISTOR	1.8MΩ,1/16W
	R1029	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
	R1030	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
	R1031	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R1032	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
	R1033	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R1034	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R1036	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
	R1037	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
	R1038	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
	R1039	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
	R1040	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R1041	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
	R1042	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
	R1043	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
	R1044	NRSA6AJ-123W	MG RESISTOR	12kΩ,1/16W
	R1045	NRSA6AJ-822W	MG RESISTOR	8.2kΩ,1/16W
	R1046	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
	R1047	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
	R1048	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
	R1049	NRSA6AJ-393W	MG RESISTOR	39kΩ,1/16W
	R1050	NRSA6AJ-223W	MG RESISTOR	22kΩ,1/16W
	R1051	NRSA6AJ-272W	MG RESISTOR	2.7kΩ,1/16W
	R1052	NRSA6AJ-183W	MG RESISTOR	18kΩ,1/16W
	R1053	NRSA6AJ-154W	MG RESISTOR	150kΩ,1/16W
	R1054	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
	R1055	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
	R1056	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
	R1057	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
	R1058	NRSA6AJ-222W	MG RESISTOR	2.2kΩ,1/16W
	R1061	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
	R1062	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
	R1080	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
	R1302	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
	R1306	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
	R1401	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R1402	NRSA6AJ-222W	MG RESISTOR	2.2kΩ,1/16W
	R1403	NRSA6AJ-222W	MG RESISTOR	2.2kΩ,1/16W
	R1408	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
	R1409	NRSA6AJ-331W	MG RESISTOR	330Ω,1/16W
	R1413	NRSA6AJ-331W	MG RESISTOR	330Ω,1/16W
	R1414	NRSA6AJ-331W	MG RESISTOR	330Ω,1/16W
	R1415	NRSA6AJ-331W	MG RESISTOR	330Ω,1/16W
	R1416	NRSA6AJ-331W	MG RESISTOR	330Ω,1/16W
	R1417	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R1418	NRSA6AJ-221W	MG RESISTOR	220Ω,1/16W
	R1419	NRSA6AJ-221W	MG RESISTOR	220Ω,1/16W
	R1420	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
	R1422	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W
	R1423	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W
	R1424	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W
	R1425	NRVA6AD-753W	CMF RESISTOR	75kΩ,1/16W
	R1426	NRSA6AJ-334W	MG RESISTOR	330kΩ,1/16W
	R1427	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
	R1428	NRSA6AJ-153W	MG RESISTOR	15kΩ,1/16W
	R1429	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R1430	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R1432	NRSA6AJ-820W	MG RESISTOR	82Ω,1/16W
	R1433	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R1434	NRSA6AJ-683W	MG RESISTOR	68kΩ,1/16W
	R1435	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R1436	NRSA6AJ-683W	MG RESISTOR	68kΩ,1/16W
	R1437	NRVA6AD-103W	CMF RESISTOR	10kΩ,1/16W
	R1439	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W
	R1440	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W
	R1441	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W
	R1442	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W
	R1445	NRSA6AJ-101W	MG RESISTOR	100Ω,1/16W
	R1601	NRSA6AJ-681W	MG RESISTOR	680Ω,1/16W
	R1602	NRSA6AJ-124W	MG RESISTOR	120kΩ,1/16W
	R1603	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
	R1604	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
	R1605	NRV142F-R22X	CMF RESISTOR	0.22Ω,1/4W
	R1606	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
	R1608	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
	R1609	NRV142F-R33X	CMF RESISTOR	0.33Ω,1/4W
	R1610	NRSA6AJ-471W	MG RESISTOR	470Ω,1/16W
	R1611	NRSA6AJ-471W	MG RESISTOR	470Ω,1/16W
	R1612	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
	R1613	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R1614	NRVA6AD-682W	CMF RESISTOR	6.8kΩ,1/16W
	R1615	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
	R1616	NRSA6AJ-391W	MG RESISTOR	390Ω,1/16W
	R1617	NRSA6AJ-224W	MG RESISTOR	220kΩ,1/16W

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
R1618	NRSA6AJ-154W	MG RESISTOR	150kΩ,1/16W
R1619	NRSA6AJ-223W	MG RESISTOR	22kΩ,1/16W
R1620	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R1621	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R1622	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R1624	NRVA6AD-123W	CMF RESISTOR	12kΩ,1/16W
R1625	NRSA6AJ-181W	MG RESISTOR	180Ω,1/16W
R1626	NRSA6AJ-181W	MG RESISTOR	180Ω,1/16W
R1628	NRVA6AD-271W	CMF RESISTOR	270Ω,1/16W
R1629	NRSA6AJ-684W	MG RESISTOR	680kΩ,1/16W
R1630	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R1631	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R1635	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R1636	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R1637	NRSA6AJ-154W	MG RESISTOR	150kΩ,1/16W
R2006	NRSA6AJ-100W	MG RESISTOR	10Ω,1/16W
R2007	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R2008	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R2009	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W
R2014	NRSA6AJ-820W	MG RESISTOR	82Ω,1/16W
R2015	NRSA6AJ-820W	MG RESISTOR	82Ω,1/16W
R2016	NRSA6AJ-820W	MG RESISTOR	82Ω,1/16W
R2017	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R2018	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R2019	NRSA6AJ-2R7W	MG RESISTOR	2.7Ω,1/16W
R2020	NRSA6AJ-2R7W	MG RESISTOR	2.7Ω,1/16W
R2023	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R2024	NRSA6AJ-183W	MG RESISTOR	18kΩ,1/16W
R2025	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
R2026	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R2027	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W
R2028	NRSA6AJ-224W	MG RESISTOR	220kΩ,1/16W
R2029	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R2101	NRSA6AJ-182W	MG RESISTOR	1.8kΩ,1/16W
R2102	NRSA6AJ-182W	MG RESISTOR	1.8kΩ,1/16W
R2103	NRSA6AJ-153W	MG RESISTOR	15kΩ,1/16W
R2104	NRSA6AJ-153W	MG RESISTOR	15kΩ,1/16W
R2105	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
R2106	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
R2107	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
R2108	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
R2109	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R2110	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R2111	NRSA6AJ-222W	MG RESISTOR	2.2kΩ,1/16W
R2112	NRSA6AJ-222W	MG RESISTOR	2.2kΩ,1/16W
R2113	NRSA6AJ-153W	MG RESISTOR	15kΩ,1/16W
R2114	NRSA6AJ-153W	MG RESISTOR	15kΩ,1/16W
R2117	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R2118	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R2119	NRSA6AJ-153W	MG RESISTOR	15kΩ,1/16W
R2120	NRSA6AJ-153W	MG RESISTOR	15kΩ,1/16W
R2127	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R2128	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R2129	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W
R2130	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W
R2201	NRSA6AJ-182W	MG RESISTOR	1.8kΩ,1/16W
R2202	NRSA6AJ-182W	MG RESISTOR	1.8kΩ,1/16W
R3002	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R3004	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R3007	NRSA6AJ-562W	MG RESISTOR	5.6kΩ,1/16W
R3008	NRSA6AJ-222W	MG RESISTOR	2.2kΩ,1/16W
R3009	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R3010	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
R3011	NRSA6AJ-224W	MG RESISTOR	220kΩ,1/16W
R3013	NRSA6AJ-242W	MG RESISTOR	2.4kΩ,1/16W
R3014	NRSA6AJ-392W	MG RESISTOR	3.9kΩ,1/16W
R3015	NRSA6AJ-392W	MG RESISTOR	3.9kΩ,1/16W
R3016	NRSA6AD-560W	MG RESISTOR	56Ω,1/16W
R3017	NRSA6AD-560W	MG RESISTOR	56Ω,1/16W
R3018	NRSA6AD-560W	MG RESISTOR	56Ω,1/16W
R3019	NRSA6AD-560W	MG RESISTOR	56Ω,1/16W
R3020	NRSA6AD-512W	MG RESISTOR	5.1kΩ,1/16W
R3027	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R3029	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R3030	NRSA6AJ-224W	MG RESISTOR	220kΩ,1/16W
R3031	NRSA6AJ-224W	MG RESISTOR	220kΩ,1/16W
R3033	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R3034	NRSA6AJ-222W	MG RESISTOR	2.2kΩ,1/16W
R3041	NRSA6AJ-561W	MG RESISTOR	560Ω,1/16W
R3042	NRSA6AJ-561W	MG RESISTOR	560Ω,1/16W
R3043	NRSA6AJ-561W	MG RESISTOR	560Ω,1/16W
R3044	NRSA6AJ-392W	MG RESISTOR	3.9kΩ,1/16W
R3046	NRSA6AD-222W	MG RESISTOR	2.2kΩ,1/16W
R3050	NRSA6AJ-101W	MG RESISTOR	100Ω,1/16W
R3052	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R3053	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R3054	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R3055	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R3501	NRSA6AJ-471W	MG RESISTOR	470Ω,1/16W
R3502	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
R3503	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R3504	NRSA6AD-241W	MG RESISTOR	240Ω,1/16W
R3505	NRSA6AD-241W	MG RESISTOR	240Ω,1/16W
R3506	NRSA6AD-241W	MG RESISTOR	240Ω,1/16W
R3507	NRSA6AD-241W	MG RESISTOR	240Ω,1/16W
R3508	NRSA6AJ-223W	MG RESISTOR	22kΩ,1/16W
R3521	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R3522	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R3701	NRSA6AD-241W	MG RESISTOR	240Ω,1/16W
R3702	NRSA6AD-241W	MG RESISTOR	240Ω,1/16W
R3703	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R3706	NRSA6AD-221W	MG RESISTOR	220Ω,1/16W
R3707	NRSA6AD-221W	MG RESISTOR	220Ω,1/16W
R3708	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R3711	NRSA6AD-680W	MG RESISTOR	68Ω,1/16W
R3712	NRSA6AD-680W	MG RESISTOR	68Ω,1/16W
R3713	NRSA6AD-680W	MG RESISTOR	68Ω,1/16W
R3714	NRSA6AJ-123W	MG RESISTOR	12kΩ,1/16W
R3715	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R3717	NRSA6AJ-561W	MG RESISTOR	560Ω,1/16W
R3718	NRSA6AJ-561W	MG RESISTOR	560Ω,1/16W
R3719	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R3723	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R3724	NRSA6AJ-392W	MG RESISTOR	3.9kΩ,1/16W
R4202	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4203	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4204	NRSA6AJ-220W	MG RESISTOR	22Ω,1/16W
R4205	NRSA6AJ-243W	MG RESISTOR	24kΩ,1/16W
R4206	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R4207	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R4208	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R4301	NRSA6AJ-101W	MG RESISTOR	100Ω,1/16W
R4304	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4305	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4307	NRSA6AD-333W	MG RESISTOR	33kΩ,1/16W
R4308	NRSA6AD-682W	MG RESISTOR	6.8kΩ,1/16W

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
R4309	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4311	NRSA6AD-272W	MG RESISTOR	2.7kΩ,1/16W
R4312	NRSA6AD-272W	MG RESISTOR	2.7kΩ,1/16W
R4313	NRSA6AD-272W	MG RESISTOR	2.7kΩ,1/16W
R4314	NRSA6AD-123W	MG RESISTOR	12kΩ,1/16W
R4315	NRSA6AD-103W	MG RESISTOR	10kΩ,1/16W
R4316	NRSA6AD-111W	MG RESISTOR	110Ω,1/16W
R4317	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4318	NRSA6AJ-152W	MG RESISTOR	1.5kΩ,1/16W
R4319	NRSA6AD-111W	MG RESISTOR	110Ω,1/16W
R4320	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4321	NRSA6AJ-152W	MG RESISTOR	1.5kΩ,1/16W
R4322	NRSA6AD-111W	MG RESISTOR	110Ω,1/16W
R4323	NRSA6AD-101W	MG RESISTOR	100Ω,1/16W
R4324	NRSA6AJ-152W	MG RESISTOR	1.5kΩ,1/16W
R4326	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4327	NRSA6AJ-152W	MG RESISTOR	1.5kΩ,1/16W
R4328	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4329	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4333	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4336	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4337	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4338	NRSA6AJ-220W	MG RESISTOR	22Ω,1/16W
R4339	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4340	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4341	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4343	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4344	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4346	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R4347	NRSA6AJ-223W	MG RESISTOR	22kΩ,1/16W
R4348	NRSA6AJ-223W	MG RESISTOR	22kΩ,1/16W
R4349	NRSA6AJ-223W	MG RESISTOR	22kΩ,1/16W
R4350	NRSA6AJ-223W	MG RESISTOR	22kΩ,1/16W
R4351	NRSA6AJ-223W	MG RESISTOR	22kΩ,1/16W
R4804	NRSA6AJ-331W	MG RESISTOR	330Ω,1/16W
R4805	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R4806	NRSA6AJ-683W	MG RESISTOR	68kΩ,1/16W
R4807	NRSA6AJ-823W	MG RESISTOR	82kΩ,1/16W
R4808	NRSA6AJ-243W	MG RESISTOR	24kΩ,1/16W
R4809	NRSA6AJ-681W	MG RESISTOR	680Ω,1/16W
R4810	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R4811	NRSA6AJ-824W	MG RESISTOR	820kΩ,1/16W
R4812	NRSA6AJ-153W	MG RESISTOR	15kΩ,1/16W
R4814	NRSA6AJ-105W	MG RESISTOR	1MΩ,1/16W
R4815	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R4816	NRSA6AJ-105W	MG RESISTOR	1MΩ,1/16W
R4817	NRSA6AJ-334W	MG RESISTOR	330kΩ,1/16W
R4818	NRSA6AJ-154W	MG RESISTOR	150kΩ,1/16W
R4819	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R4820	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
R4821	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
R4822	NRSA6AJ-333W	MG RESISTOR	33kΩ,1/16W
R4823	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R4824	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R4833	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
R4836	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R4856	NRSA63J-6R8X	MG RESISTOR	6.8Ω,1/16W
R4857	NRSA63J-6R8X	MG RESISTOR	6.8Ω,1/16W
R4858	NRSA6AJ-333W	MG RESISTOR	33kΩ,1/16W
R4862	NRSA63J-6R8X	MG RESISTOR	6.8Ω,1/16W
R4863	NRSA63J-6R8X	MG RESISTOR	6.8Ω,1/16W
R4864	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R4865	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R4866	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R4867	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R4868	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4870	NRVA6AD-271W	CMF RESISTOR	270Ω,1/16W
R4874	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R5501	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R5503	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R5504	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R5505	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R5506	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R5507	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R5509	NRSA6AJ-470W	MG RESISTOR	47Ω,1/16W
R5510	NRSA6AJ-470W	MG RESISTOR	47Ω,1/16W
R5511	NRSA6AJ-470W	MG RESISTOR	47Ω,1/16W
R5512	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R5513	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R5514	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R6001	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
R6002	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
R6003	NRSA6AJ-224W	MG RESISTOR	220kΩ,1/16W
R6004	NRSA6AJ-183W	MG RESISTOR	18kΩ,1/16W
R6005	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
⚠ R6009	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R6010	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
R6011	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R6012	NRVA6AD-104W	CMF RESISTOR	100kΩ,1/16W
R6013	NRVA6AD-683W	CMF RESISTOR	68kΩ,1/16W
R6014	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R6015	NRVA6AD-104W	CMF RESISTOR	100kΩ,1/16W
R6016	NRVA6AD-333W	CMF RESISTOR	33kΩ,1/16W
R6101	NRVA6AD-103W	CMF RESISTOR	10kΩ,1/16W
R6102	NRVA6AD-751W	CMF RESISTOR	750Ω,1/16W
R6103	NRVA6AD-333W	CMF RESISTOR	33kΩ,1/16W
R6104	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
R6105	NRVA6AD-123W	CMF RESISTOR	12kΩ,1/16W
R6106	NRSA6AJ-333W	MG RESISTOR	33kΩ,1/16W
R6107	NRVA6AD-562W	CMF RESISTOR	5.6kΩ,1/16W
R6108	NRSA6AJ-223W	MG RESISTOR	22kΩ,1/16W
R6110	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R6113	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R6114	NRSA6AJ-823W	MG RESISTOR	82kΩ,1/16W
R6115	NRSA6AJ-823W	MG RESISTOR	82kΩ,1/16W
R6116	NRVA6AD-153W	CMF RESISTOR	15kΩ,1/16W
R6117	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R6118	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R6122	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
R6124	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R6201	NRVA6AD-243W	CMF RESISTOR	24kΩ,1/16W
R6203	NRVA6AD-123W	CMF RESISTOR	12kΩ,1/16W
R6204	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
R6205	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R6206	NRVA6AD-183W	CMF RESISTOR	18kΩ,1/16W
R6207	NRVA6AD-123W	CMF RESISTOR	12kΩ,1/16W
R6208	NRVA6AD-123W	CMF RESISTOR	12kΩ,1/16W
R6209	NRVA6AD-153W	CMF RESISTOR	15kΩ,1/16W
R6210	NRVA6AD-183W	CMF RESISTOR	18kΩ,1/16W
R6212	NRVA6AD-472W	CMF RESISTOR	4.7kΩ,1/16W
R6213	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R6214	NRSA6AJ-152W	MG RESISTOR	1.5kΩ,1/16W
R6215	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
R6217	NRSA6AJ-151W	MG RESISTOR	150Ω,1/16W
R6218	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
R6219	NRVA6AD-243W	CMF RESISTOR	24kΩ,1/16W

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
R6220	NRVA6AD-302W	CMF RESISTOR	3kΩ,1/16W
R6221	NRVA6AD-104W	CMF RESISTOR	100kΩ,1/16W
R6223	NRVA6AD-123W	CMF RESISTOR	12kΩ,1/16W
R6224	NRVA6AD-473W	CMF RESISTOR	47kΩ,1/16W
R6225	NRVA6AD-562W	CMF RESISTOR	5.6kΩ,1/16W
R6226	NRVA6AD-223W	CMF RESISTOR	22kΩ,1/16W
R6227	NRVA6AD-473W	CMF RESISTOR	47kΩ,1/16W
R6228	NRVA6AD-473W	CMF RESISTOR	47kΩ,1/16W
R6229	NRVA6AD-332W	CMF RESISTOR	3.3kΩ,1/16W
R6230	NRSA6AJ-272W	MG RESISTOR	2.7kΩ,1/16W
R6231	NRVA6AD-104W	CMF RESISTOR	100kΩ,1/16W
R6232	NRVA6AD-473W	CMF RESISTOR	47kΩ,1/16W
R6233	NRSA6AJ-822W	MG RESISTOR	8.2kΩ,1/16W
R6234	NRSA6AJ-273W	MG RESISTOR	27kΩ,1/16W
R6235	NRVA6AD-683W	CMF RESISTOR	68kΩ,1/16W
R6236	NRVA6AD-473W	CMF RESISTOR	47kΩ,1/16W
R6237	NRVA6AD-753W	CMF RESISTOR	75kΩ,1/16W
R6238	NRVA6AD-104W	CMF RESISTOR	100kΩ,1/16W
R6239	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R6240	NRSA6AJ-333W	MG RESISTOR	33kΩ,1/16W
R6241	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R6242	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
R6243	NRSA6AJ-823W	MG RESISTOR	82kΩ,1/16W
R6244	NRSA6AJ-152W	MG RESISTOR	1.5kΩ,1/16W
R6245	NRSA6AJ-562W	MG RESISTOR	5.6kΩ,1/16W
R6246	NRSA6AJ-222W	MG RESISTOR	2.2kΩ,1/16W
R6701	NRZ0058-R20X	MG RESISTOR	0.2Ω,1/2W
R6702	NRVA6AD-104W	CMF RESISTOR	100kΩ,1/16W
R6703	NRVA6AD-123W	CMF RESISTOR	12kΩ,1/16W
R6712	NRVA6AD-823W	CMF RESISTOR	82kΩ,1/16W
R6713	NRVA6AD-333W	CMF RESISTOR	33kΩ,1/16W
RA1001	NRZ0034-102W	NETWORK RESISTOR	1kΩ
RA1002	NRZ0034-102W	NETWORK RESISTOR	1kΩ
RA1003	NRZ0034-102W	NETWORK RESISTOR	1kΩ
RA1004	NRZ0034-102W	NETWORK RESISTOR	1kΩ
RA1005	NRZ0034-102W	NETWORK RESISTOR	1kΩ
RA1006	NRZ0034-102W	NETWORK RESISTOR	1kΩ
RA1007	NRZ0034-102W	NETWORK RESISTOR	1kΩ
RA1008	NRZ0034-104W	NETWORK RESISTOR	100kΩ
RA1009	NRZ0034-104W	NETWORK RESISTOR	100kΩ
RA1010	NRZ0034-104W	NETWORK RESISTOR	100kΩ
RA1401	NRZ0034-473W	NETWORK RESISTOR	47kΩ
RA1402	NRZ0034-102W	NETWORK RESISTOR	1kΩ
RA1403	NRZ0034-102W	NETWORK RESISTOR	1kΩ
RA3001	NRZ0034-100W	NETWORK RESISTOR	10Ω
RA3002	NRZ0034-100W	NETWORK RESISTOR	10Ω
RA4301	NRZ0034-101W	NETWORK RESISTOR	100Ω
RA4302	NRZ0034-101W	NETWORK RESISTOR	100Ω
RA4303	NRZ0034-101W	NETWORK RESISTOR	100Ω
C1001	NBE20JM-226X	T CAPACITOR	22μF,6.3V
C1002	NCFA1AZ-104W	CAPACITOR	0.1μF,10V
C1003	NBE20JM-226X	T CAPACITOR	22μF,6.3V
C1004	NCFA1AZ-104W	CAPACITOR	0.1μF,10V
C1005	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1006	NDCA1HJ-130W	CAPACITOR	13pF,50V
C1007	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1009	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1010	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1011	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1012	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1014	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1015	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1016	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1017	NCBA1CK-103W	CAPACITOR	0.01μF,16V

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
C1019	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1023	NCFA1AZ-104W	CAPACITOR	0.1μF,10V
C1024	NDCA1HJ-100W	CAPACITOR,A	10pF,50V
C1025	NDCA1HJ-100W	CAPACITOR,A	10pF,50V
C1026	NCFA1AZ-104W	CAPACITOR	0.1μF,10V
C1027	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1028	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1029	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1030	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1031	NCB30JK-105X	CAPACITOR	1μF,6.3V
C1036	NCFA1AZ-104W	CAPACITOR	0.1μF,10V
C1039	NCFA1AZ-104W	CAPACITOR	0.1μF,10V
C1040	NCFA1AZ-104W	CAPACITOR	0.1μF,10V
C1041	NCFA1AZ-104W	CAPACITOR	0.1μF,10V
C1301	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C1302	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C1303	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C1304	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C1305	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C1306	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C1307	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C1401	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C1402	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C1405	NCFA1AZ-104W	CAPACITOR	0.1μF,10V
C1406	NCFA1AZ-104W	CAPACITOR	0.1μF,10V
C1408	NCFA1AZ-104W	CAPACITOR	0.1μF,10V
C1409	NCFA1AZ-104W	CAPACITOR	0.1μF,10V
C1410	NCFA1AZ-104W	CAPACITOR	0.1μF,10V
C1411	NCFA1AZ-104W	CAPACITOR	0.1μF,10V
C1412	NCFA1AZ-104W	CAPACITOR	0.1μF,10V
C1413	NCFA1AZ-104W	CAPACITOR	0.1μF,10V
C1414	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1415	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1416	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1417	NCBA1CK-223W	CAPACITOR	0.022μF,16V
C1418	NCBA1CK-223W	CAPACITOR	0.022μF,16V
C1419	NCBA1CK-223W	CAPACITOR	0.022μF,16V
C1420	NCBA1CK-223W	CAPACITOR	0.022μF,16V
C1601	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1602	NBE21AM-106X	T CAPACITOR	10μF,10V
C1603	NBE21AM-106X	T CAPACITOR	10μF,10V
C1605	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C1606	NCB31HK-152X	CAPACITOR	0.0015μF,50V
C1607	NCBA1AK-473W	CAPACITOR	0.047μF,10V
C1614	NBE21AM-106X	T CAPACITOR	10μF,10V
C1618	NCBA1HK-222W	CAPACITOR	0.0022μF,50V
C1619	NCBA1HK-222W	CAPACITOR	0.0022μF,50V
C1620	NCBA1HK-222W	CAPACITOR	0.0022μF,50V
C1621	NCB21CK-105X	CAPACITOR	1μF,16V
C1622	NCBA1CK-223W	CAPACITOR	0.022μF,16V
C1623	NCBA1AK-473W	CAPACITOR	0.047μF,10V
C1624	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1625	NCBA1AK-473W	CAPACITOR	0.047μF,10V
C1626	NCBA1HK-331W	CAPACITOR	330pF,50V
C1627	NCBA1CK-822W	CAPACITOR	0.0082μF,16V
C1628	NCB21CK-224X	CAPACITOR	0.22μF,16V
C1632	NBE21AM-106X	T CAPACITOR	10μF,10V
C1633	NCB21CK-474X	CAPACITOR	0.47μF,16V
C1635	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C1641	NCB21CK-474X	CAPACITOR	0.47μF,16V
C2001	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C2002	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C2004	NCB21CK-105X	CAPACITOR	1μF,16V
C2005	NCB21CK-105X	CAPACITOR	1μF,16V

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
C2006	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C2007	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C2008	NCB21CK-105X	CAPACITOR	1µF,16V
C2009	NCB21CK-105X	CAPACITOR	1µF,16V
C2010	NCB21CK-105X	CAPACITOR	1µF,16V
C2011	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C2012	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C2013	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C2014	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C2015	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C2016	NCBA1CK-223W	CAPACITOR	0.022µF,16V
C2017	NCBA1AK-333W	CAPACITOR	0.033µF,10V
C2018	NCB31CK-104X	CAPACITOR	0.1µF,16V
C2019	NCB31CK-104X	CAPACITOR	0.1µF,16V
C2020	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C2021	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C2101	NCB31CK-104X	CAPACITOR	0.1µF,16V
C2102	NCB31CK-104X	CAPACITOR	0.1µF,16V
C2103	NCB21CK-105X	CAPACITOR	1µF,16V
C2104	NCB21CK-105X	CAPACITOR	1µF,16V
C2109	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C2110	NCB21CK-105X	CAPACITOR	1µF,16V
C2111	NCBA1EK-472W	CAPACITOR	0.0047µF,25V
C2112	NCBA1EK-472W	CAPACITOR	0.0047µF,25V
C2113	NCBA1EK-472W	CAPACITOR	0.0047µF,25V
C2114	NCBA1EK-472W	CAPACITOR	0.0047µF,25V
C2115	NCB31CK-104X	CAPACITOR	0.1µF,16V
C2116	NCB31CK-104X	CAPACITOR	0.1µF,16V
C2121	NCBA1CK-223W	CAPACITOR	0.022µF,16V
C2122	NCBA1CK-223W	CAPACITOR	0.022µF,16V
C2123	NCBA1CK-223W	CAPACITOR	0.022µF,16V
C2124	NCBA1CK-223W	CAPACITOR	0.022µF,16V
C2125	NCBA1CK-223W	CAPACITOR	0.022µF,16V
C2126	NCBA1CK-223W	CAPACITOR	0.022µF,16V
C2131	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C2132	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C2133	NCBA1CK-223W	CAPACITOR	0.022µF,16V
C2134	NCBA1CK-223W	CAPACITOR	0.022µF,16V
C2201	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C2202	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3001	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C3003	NCB21CK-105X	CAPACITOR	1µF,16V
C3004	NCB21CK-105X	CAPACITOR	1µF,16V
C3005	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C3007	NCB11CK-105X	CAPACITOR	1µF,16V
C3008	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C3011	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3012	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3013	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3015	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3016	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3017	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3020	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3021	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3022	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3023	NDCA1HJ-330W	CAPACITOR	33pF,50V
C3024	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C3025	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3026	NCB30JK-105X	CAPACITOR	1µF,6.3V
C3027	NCBA1EK-472W	CAPACITOR	0.0047µF,25V
C3028	NDCA1EJ-271W	CAPACITOR	270pF,25V
C3029	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3030	NCBA1AK-104W	CAPACITOR	0.1µF,10V

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
C3031	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3032	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C3033	NDCA1HJ-470W	CAPACITOR	47pF,50V
C3034	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C3035	NDCA1HJ-330W	CAPACITOR	33pF,50V
C3038	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3039	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3040	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3041	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3042	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3043	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3044	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3045	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3046	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3047	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3051	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3052	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C3053	NCBA1AK-473W	CAPACITOR	0.047µF,10V
C3056	NCB30JK-105X	CAPACITOR	1µF,6.3V
C3057	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3058	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3060	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3061	NCB21CK-105X	CAPACITOR	1µF,16V
C3062	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3063	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3064	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3501	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C3502	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C3503	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C3504	NCBA1AK-473W	CAPACITOR	0.047µF,10V
C3505	NCBA1CK-223W	CAPACITOR	0.022µF,16V
C3506	NCB21CK-105X	CAPACITOR	1µF,16V
C3507	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3508	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3509	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3510	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3511	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3512	NCB31CK-104X	CAPACITOR	0.1µF,16V
C3513	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3514	NCBA1AK-473W	CAPACITOR	0.047µF,10V
C3515	NCBA1AK-473W	CAPACITOR	0.047µF,10V
C3516	NCBA1AK-473W	CAPACITOR	0.047µF,10V
C3517	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3518	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3519	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C3520	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3521	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3522	NCB20JM-475X	CAPACITOR	4.7µF,6.3V
C3523	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3524	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3525	NCB20JM-475X	CAPACITOR	4.7µF,6.3V
C3526	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3527	NDCA1EJ-221W	CAPACITOR	220pF,25V
C3701	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C3702	NDCA1HJ-151W	CAPACITOR	150pF,50V
C3703	NDCA1HJ-330W	CAPACITOR	33pF,50V
C3704	NDCA1HJ-101W	CAPACITOR	100pF,50V
C3705	NDCA1HJ-330W	CAPACITOR	33pF,50V
C3706	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3707	NCFA1AZ-104W	CAPACITOR	0.1µF,10V
C3708	NCB30JK-105X	CAPACITOR	1µF,6.3V
C3709	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3710	NCBA1CK-103W	CAPACITOR	0.01µF,16V

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
C3711	NBE20GM-226X	T CAPACITOR	22µF,4.0V
C3712	NBE40GM-107X	T CAPACITOR	100µF,4.0V
C3713	NEA70GM-337X	E CAPACITOR	330µF,4.0V
C4201	NBE40GM-107X	T CAPACITOR	100µF,4.0V
C4202	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4203	NCB30JK-105X	CAPACITOR	1µF,6.3V
C4204	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4205	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4206	NCB21CK-105X	CAPACITOR	1µF,16V
C4207	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4208	NCBA1HK-392W	CAPACITOR	0.0039µF,50V
C4209	NCB30JK-105X	CAPACITOR	1µF,6.3V
C4210	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4211	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4212	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4213	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4214	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4215	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4216	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4301	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4303	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4304	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4305	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C4306	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4307	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C4308	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4309	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4310	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C4311	NCB30JK-105X	CAPACITOR	1µF,6.3V
C4312	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4313	NBE20JM-226X	T CAPACITOR	22µF,6.3V
C4314	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4315	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C4317	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4318	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4319	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4320	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4321	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4323	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4324	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C4325	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4327	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4328	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4329	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4330	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4331	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C4332	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4333	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4334	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4335	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4336	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4337	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4338	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4339	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4340	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4341	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4342	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4343	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4344	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4345	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4346	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4347	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4348	NCBA1AK-104W	CAPACITOR	0.1µF,10V

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
C4349	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4350	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4803	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C4804	NCFA1AZ-104W	CAPACITOR	0.1µF,10V
C4805	NCFA1AZ-104W	CAPACITOR	0.1µF,10V
C4806	NCFA1AZ-104W	CAPACITOR	0.1µF,10V
C4808	NCB30JK-105X	CAPACITOR	1µF,6.3V
C4809	NCFA1AZ-104W	CAPACITOR	0.1µF,10V
C4810	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C4811	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C4812	NCFA1AZ-104W	CAPACITOR	0.1µF,10V
C4813	NCFA1AZ-104W	CAPACITOR	0.1µF,10V
C4814	NCFA1AZ-104W	CAPACITOR	0.1µF,10V
C4815	NCB31HK-152X	CAPACITOR	0.0015µF,50V
C4819	NCB31CK-104X	CAPACITOR	0.1µF,16V
C4851	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C4852	NCFA1AZ-104W	CAPACITOR	0.1µF,10V
C4853	NBE21AM-335X	T CAPACITOR	3.3µF,10V
C4854	NBE21AM-106X	T CAPACITOR	10µF,10V
C4855	NCB31CK-104X	CAPACITOR	0.1µF,16V
C4858	NDCA1HJ-330W	CAPACITOR	33pF,50V
C4859	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C4860	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C4861	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C4862	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C4864	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C4865	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5501	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5503	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5504	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5505	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5506	NBE40JM-476X	T CAPACITOR	47µF,6.3V
C5507	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5508	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5509	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5510	NBP21VM-105X	T CAPACITOR	1µF,35V
C5511	NBP21DM-475X	T CAPACITOR	4.7µF,20V
C5512	NBE21AM-106X	T CAPACITOR	10µF,10V
C5513	NCB31CK-104X	CAPACITOR	0.1µF,16V
C5514	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5515	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5516	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5517	NCB31CK-104X	CAPACITOR	0.1µF,16V
C5518	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5519	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C6001	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C6004	NCB21CK-105X	CAPACITOR	1µF,16V
C6005	NDCA1HJ-101W	CAPACITOR	100pF,50V
C6101	NCB21CK-105X	CAPACITOR	1µF,16V
C6102	NEA71CM-106X	E CAPACITOR	10µF,16V
C6103	NCB21CK-105X	CAPACITOR	1µF,16V
C6105	NCB21CK-105X	CAPACITOR	1µF,16V
C6106	NCB21CK-105X	CAPACITOR	1µF,16V
C6107	NCB21CK-105X	CAPACITOR	1µF,16V
C6108	NCB21CK-105X	CAPACITOR	1µF,16V
C6109	NCB21CK-105X	CAPACITOR	1µF,16V
C6110	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C6111	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C6112	NCBA1AK-333W	CAPACITOR	0.033µF,10V
C6113	NCBA1HK-561W	CAPACITOR	560pF,50V
C6114	NCBA1HK-272W	CAPACITOR	0.0027µF,50V
C6115	NCBA1HK-561W	CAPACITOR	560pF,50V
C6116	NCBA1CK-103W	CAPACITOR	0.01µF,16V

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
C6117	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C6118	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C6119	NDCA1HJ-101W	CAPACITOR	100pF,50V
C6120	NCB11CK-105X	CAPACITOR	1µF,16V
C6121	NCB31CK-104X	CAPACITOR	0.1µF,16V
C6122	NCBA1CK-223W	CAPACITOR	0.022µF,16V
C6123	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C6124	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C6125	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C6126	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C6127	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C6128	NCB21CK-105X	CAPACITOR	1µF,16V
C6129	NCBA1HK-561W	CAPACITOR	560pF,50V
C6130	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C6131	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C6132	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C6133	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C6134	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C6201	NCB21CK-105X	CAPACITOR	1µF,16V
C6202	NCB10JK-106X	CAPACITOR	10µF,6.3V
C6203	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C6204	NCBA1HK-561W	CAPACITOR	560pF,50V
C6205	NCB21CK-105X	CAPACITOR	1µF,16V
C6206	NCB21CK-105X	CAPACITOR	1µF,16V
C6207	NCB10JK-106X	CAPACITOR	10µF,6.3V
C6208	NCBA1EK-472W	CAPACITOR	0.0047µF,25V
C6209	NCB21CK-105X	CAPACITOR	1µF,16V
C6210	NCB10JK-106X	CAPACITOR	10µF,6.3V
C6211	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C6212	NCB21CK-105X	CAPACITOR	1µF,16V
C6213	NCB11EK-105X	CAPACITOR	1µF,25V
C6214	NCB21CK-105X	CAPACITOR	1µF,16V
C6215	NCB21CK-105X	CAPACITOR	1µF,16V
C6216	NCBA1AK-683W	CAPACITOR	0.068µF,10V
C6217	NCB21CK-105X	CAPACITOR	1µF,16V
C6218	NCB21CK-105X	CAPACITOR	1µF,16V
C6219	NCB21CK-224X	CAPACITOR	0.22µF,16V
C6220	NCB21CK-105X	CAPACITOR	1µF,16V
C6221	NCB11EK-105X	CAPACITOR	1µF,25V
C6222	NCB11EK-105X	CAPACITOR	1µF,25V
C6224	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C6225	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C6226	NCB21CK-105X	CAPACITOR	1µF,16V
C6227	NCB11EK-105X	CAPACITOR	1µF,25V
C6228	NCB11EK-105X	CAPACITOR	1µF,25V
C6230	NCB21CK-105X	CAPACITOR	1µF,16V
C6231	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C6701	NCB21CK-105X	CAPACITOR	1µF,16V
C6703	NCB11CK-105X	CAPACITOR	1µF,16V
L1001	NQL315K-100X	COIL	10µH
L1002	NQL315K-100X	COIL	10µH
L1401	NQR0006-001X	FERRITE BEAD	
L1402	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
L2001	NQL315K-100X	COIL	10µH
L2002	NQL38DK-220X	COIL	22µH
L3001	NQR0006-001X	FERRITE BEAD	
L3002	NQR0129-002X	FERRITE BEAD	
L3003	NQR0129-002X	FERRITE BEAD	
L3004	NQR0006-001X	FERRITE BEAD	
L3005	NQR0129-002X	FERRITE BEAD	
L3006	NQR0006-001X	FERRITE BEAD	
L3007	NQL085J-2R2X	COIL	2.2µH
L3008	NQL085J-120X	COIL	12µH
L3009	NQL085J-120X	COIL	12µH

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
L3010	NQR0384-003X	COIL	
L3011	NQR0384-003X	COIL	
L3012	NQR0006-001X	FERRITE BEAD	
L3013	NQR0006-001X	FERRITE BEAD	
L3501	NQR0129-002X	FERRITE BEAD	
L3502	NQL302N-100X	COIL	10µH
L3503	NQR0006-001X	FERRITE BEAD	
L3504	NQR0006-001X	FERRITE BEAD	
L3505	NQR0006-001X	FERRITE BEAD	
L3701	NQL38DK-100X	COIL	10µH
L4201	NQR0129-002X	FERRITE BEAD	
L4301	NQR0129-002X	FERRITE BEAD	
L4302	NQR0129-002X	FERRITE BEAD	
L4303	NQL38DK-100X	COIL	10µH
L4304	NQL38DK-100X	COIL	10µH
L4305	NQR0129-002X	FERRITE BEAD	
L4306	NQR0129-002X	FERRITE BEAD	
L4307	NQL38DK-100X	COIL	10µH
L4802	NQL302N-100X	COIL	10µH
L4851	NQR0129-002X	FERRITE BEAD	
L4852	NQL38DK-100X	COIL	10µH
L4853	NQL38DK-100X	COIL	10µH
L5501	NQL38DK-100X	COIL	10µH
L5502	NQR0129-002X	FERRITE BEAD	
L5503	NQR0129-002X	FERRITE BEAD	
L5504	NQR0129-002X	FERRITE BEAD	
L5505	NQL38DK-100X	COIL	10µH
L5506	NQL38DK-100X	COIL	10µH
L6101	NQLZ011-4R7X	COIL	4.7µH
L6102	NQLZ011-4R7X	COIL	4.7µH
L6201	NQLZ011-390X	COIL	39µH
L6202	NQLZ011-390X	COIL	39µH
L6203	NQLZ011-390X	COIL	39µH
L6204	NQL144K-220X	COIL	22µH
L6205	NQL35BK-100X	COIL	10µH
L6206	NQLZ011-470X	COIL	47µH
L6207	NQLZ011-470X	COIL	47µH
L6208	NQLZ011-221X	COIL	220µH
L6209	NQL144K-221X	COIL	220µH
L6210	NQL144K-220X	COIL	22µH
L6701	NQLZ007-100X	COIL	10µH
X1001	NAX0424-001X	CRYSTAL RESONATOR,A	
	NAX0474-001X	C OSCILLATOR,B,C	
X1002	NAX0325-001X	CRYSTAL RESONATOR	
X5501	NAX0356-001X	CXO	
WR1	WJT0045-001A	E-CARD WIRE,CN103-JACK CN502	
WR2	WJJ0206-001A	E-SI C WIRE C-C,CN104-REAR UNIT	
J101	NNZ0041-001X	D CONNECTOR	
CN101	QGF0508F1-40X	FPC CONNECTOR	
CN102	QGA1002F1-09X	CONNECTOR	
CN103	QGF0505F2-14X	FPC CONNECTOR	
CN104	QGA1002C1-10X	CONNECTOR	
CN105	QGB0801K2-20X	CONNECTOR	
CN106	QGA1201F2-03X	CONNECTOR	
CN107	QGF0507F3-20X	FFC/FPC CONNECTOR	
CN108	QGF0507F3-24X	FFC/FPC CONNECTOR	
CN109	QGF0507F3-15X	FFC/FPC CONNECTOR	
CN110	QGF0505F1-08X	FPC CONNECTOR	
CN111	QGF0503C1-06V	FFC/FPC CONNECTOR	
CN112	QGF0505F2-18X	FPC CONNECTOR	
CN113	QGF0508F1-34X	FPC CONNECTOR	
⚠ F6101	NMFZ007-2R0X-K	FUSE	T2.0A
OT1	LY43017-001A	SHIELD SHEET	
OT2	LY30029-0F4A	SPACER(A)	
SD1	LY32080-001A	SHIELD CASE	

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
**********			

MONITOR BOARD ASSEMBLY <02>

PW1	YB10324I1-03	MONITOR BOARD ASSY,A,B	
	YB10324M1-03	MONITOR BOARD ASSY,C	
IC7101	MM1385EN	IC	
IC7601	AN2540FHQ	IC	
IC7602	BA15532F	IC	
IC7603	X25057M8-2.7-X	IC	
IC7604	SN74LV08APW	IC	
Q7101	2SA1774/QR/-X	TRANSISTOR,A,B	
Q7601	2SC4617/QR/-X	TRANSISTOR	
Q7602	2SA1774/QR/-X	TRANSISTOR	
Q7603	2SC4617/QR/-X	TRANSISTOR	
Q7604	2SA1774/QR/-X	TRANSISTOR	
Q7605	DTA144EE	TRANSISTOR,C	
	or RN2104	TRANSISTOR,C	
	or UN9113J	TRANSISTOR,C	
Q7606	DTC144EE	TRANSISTOR,C	
	or RN1104	TRANSISTOR,C	
	or UN9213J	TRANSISTOR,C	
Q7607	UMZ1N	PAIR TRANSISTOR,C	
Q7608	DTC144EE	TRANSISTOR	
	or RN1104	TRANSISTOR	
	or UN9213J	TRANSISTOR	
Q7609	DTC144EE	TRANSISTOR	
	or RN1104	TRANSISTOR	
	or UN9213J	TRANSISTOR	
Q7610	DTA144EE	TRANSISTOR	
	or RN2104	TRANSISTOR	
	or UN9113J	TRANSISTOR	
D1	SML-110LT-X	LE DIODE	
D7601	RB471E	SB DIODE	
R1	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R2	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R3	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R4	NRSA63J-152X	MG RESISTOR	1.5kΩ,1/16W
R5	NRSA63J-182X	MG RESISTOR	1.8kΩ,1/16W
R6	NRSA63J-272X	MG RESISTOR	2.7kΩ,1/16W
R7101	NRSA63J-562X	MG RESISTOR,A,B	5.6kΩ,1/16W
R7102	NRSA63J-562X	MG RESISTOR,A,B	5.6kΩ,1/16W
R7103	NRSA63J-103X	MG RESISTOR,A,B	10kΩ,1/16W
R7104	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R7110	NRSA63J-0R0X	MG RESISTOR,A,B	0Ω,1/16W
R7111	NRSA63J-0R0X	MG RESISTOR,A,B	0Ω,1/16W
R7112	NRSA63J-0R0X	MG RESISTOR,A,B	0Ω,1/16W
R7113	NRSA63J-0R0X	MG RESISTOR,A,B	0Ω,1/16W
R7114	NRSA63J-0R0X	MG RESISTOR,A,B	0Ω,1/16W
R7115	NRSA63J-0R0X	MG RESISTOR,A,B	0Ω,1/16W
R7601	NRVA63D-622X	CMF RESISTOR	6.2kΩ,1/16W
R7602	NRSA63J-153X	MG RESISTOR	15kΩ,1/16W
R7603	NRSA63J-683X	MG RESISTOR	68kΩ,1/16W
R7608	NRSA63J-153X	MG RESISTOR	15kΩ,1/16W
R7609	NRVA63D-223X	CMF RESISTOR	22kΩ,1/16W
R7610	NRVA63D-433X	CMF RESISTOR	43kΩ,1/16W
R7611	NRVA63D-821X	CMF RESISTOR	820Ω,1/16W
R7612	NRVA63D-223X	CMF RESISTOR,A,B	22kΩ,1/16W
	NRVA63D-682X	CMF RESISTOR,C	6.8kΩ,1/16W
R7613	NRVA63D-223X	CMF RESISTOR	22kΩ,1/16W
R7614	NRVA63D-223X	CMF RESISTOR	22kΩ,1/16W
R7615	NRSA63J-223X	MG RESISTOR	22kΩ,1/16W
R7616	NRSA63J-223X	MG RESISTOR	22kΩ,1/16W
R7617	NRSA02J-561X	MG RESISTOR	560Ω,1/10W
R7618	NRSA02J-561X	MG RESISTOR	560Ω,1/10W
R7621	NRSA63J-0R0X	MG RESISTOR,A,B	0Ω,1/16W
R7622	NRSA63J-223X	MG RESISTOR,C	22kΩ,1/16W
R7623	NRSA63J-223X	MG RESISTOR,C	22kΩ,1/16W
R7624	NRVA63D-223X	CMF RESISTOR,C	22kΩ,1/16W
R7625	NRVA63D-223X	CMF RESISTOR,C	22kΩ,1/16W
R7626	NRVA63D-183X	CMF RESISTOR,C	18kΩ,1/16W
R7627	NRVA63D-334X	CMF RESISTOR,C	330kΩ,1/16W
R7628	NRSA63J-224X	MG RESISTOR,C	220kΩ,1/16W
R7629	NRSA63J-393X	MG RESISTOR,C	39kΩ,1/16W
R7630	NRSA63J-223X	MG RESISTOR	22kΩ,1/16W
R7631	NRSA63J-335X	MG RESISTOR	3.3MΩ,1/16W
R7633	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R7634	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R7640	NRSA63J-0R0X	MG RESISTOR,C	0Ω,1/16W
R7641	NRSA63J-0R0X	MG RESISTOR,C	0Ω,1/16W
R7642	NRSA63J-0R0X	MG RESISTOR,C	0Ω,1/16W
R7643	NRSA63J-0R0X	MG RESISTOR,C	0Ω,1/16W
R7644	NRSA63J-0R0X	MG RESISTOR,C	0Ω,1/16W
R7645	NRSA63J-0R0X	MG RESISTOR,C	0Ω,1/16W
R7646	NRSA63J-0R0X	MG RESISTOR,C	0Ω,1/16W
C1	NCB31EK-103X	CAPACITOR	0.01μF,25V
C7101	NCF31CZ-104X	CAPACITOR	0.1μF,16V
C7102	NCB31HK-103X	CAPACITOR	0.01μF,50V
C7103	NBE20JM-475X	T CAPACITOR,A,B	4.7μF,6.3V
C7601	NCB21CK-105X	CAPACITOR	1μF,16V
C7602	NCB31EK-103X	CAPACITOR	0.01μF,25V
C7603	NCB11CK-225X	CAPACITOR	2.2μF,16V
C7604	NCB11CK-225X	CAPACITOR	2.2μF,16V
C7605	NCB11CK-225X	CAPACITOR	2.2μF,16V
C7606	NCB31CK-104X	CAPACITOR	0.1μF,16V
C7607	NBP41CM-106X	T CAPACITOR	10μF,16V
C7608	NCB31EK-103X	CAPACITOR	0.01μF,25V
C7609	NCB31CK-104X	CAPACITOR	0.1μF,16V
C7610	NCB11CK-225X	CAPACITOR	2.2μF,16V
C7611	NCB11CK-225X	CAPACITOR	2.2μF,16V
C7612	NCB11CK-225X	CAPACITOR	2.2μF,16V
C7613	NCB11CK-225X	CAPACITOR	2.2μF,16V
C7614	NCB31HK-152X	CAPACITOR	0.0015μF,50V
C7615	NCB31EK-103X	CAPACITOR	0.01μF,25V
C7616	NCB31EK-103X	CAPACITOR	0.01μF,25V
C7617	NCB31EK-103X	CAPACITOR	0.01μF,25V
C7618	NCB10JK-106X	CAPACITOR	10μF,6.3V
C7619	NCB10JK-106X	CAPACITOR	10μF,6.3V
C7620	NCB31EK-103X	CAPACITOR	0.01μF,25V
C7621	NCB21CK-105X	CAPACITOR	1μF,16V
C7622	NCB21CK-105X	CAPACITOR	1μF,16V
C7623	NBE21AM-106X	T CAPACITOR	10μF,10V
C7624	NCB31EK-103X	CAPACITOR	0.01μF,25V
C7626	NCB31CK-104X	CAPACITOR	0.1μF,16V
C7627	NCF31CZ-104X	CAPACITOR	0.1μF,16V
C7628	NBP41EM-475X	T CAPACITOR	4.7μF,25V
C7629	NBP21CM-335X	T CAPACITOR	3.3μF,16V
C7630	NBP41EM-475X	T CAPACITOR	4.7μF,25V
C7631	NCB31EK-103X	CAPACITOR	0.01μF,25V
C7632	NBP41EM-475X	T CAPACITOR	4.7μF,25V
C7633	NCB31EK-103X	CAPACITOR	0.01μF,25V
C7634	NCB10JK-106X	CAPACITOR	10μF,6.3V
C7635	NCB31EK-103X	CAPACITOR	0.01μF,25V
C7636	NCF31CZ-104X	CAPACITOR,C	0.1μF,16V
C7637	NCB31EK-103X	CAPACITOR	0.01μF,25V
C7638	NCB21AK-225X	CAPACITOR,C	2.2μF,10V
C7639	NBE21AM-106X	T CAPACITOR,C	10μF,10V
C7640	NCB31EK-103X	CAPACITOR	0.01μF,25V

# ⚠	REF No.	PART No.	PART NAME, DESCRIPTION	
	C7642	NCF31CZ-104X	CAPACITOR	0.1µF,16V
	L7601	NQL315K-100X	COIL	10µH
	L7602	NQL315K-100X	COIL	10µH
	L7604	NQL315K-100X	COIL	10µH
	L7605	NQL315K-100X	COIL,A,B	10µH
	L7606	NQL315K-100X	COIL,C	10µH
	L7607	NQL315K-100X	COIL	10µH
	SW1	NSW0092-001X	SLIDE SWITCH,LIGHT	
	SW2	NSW0008-001X	TACT SWITCH,STOP	
	SW3	NSW0008-001X	TACT SWITCH,REW	
	SW4	NSW0008-001X	TACT SWITCH,FF	
	SW5	NSW0008-001X	TACT SWITCH,PLAY/PAUSE	
	SW7601	NSW0105-001X	DETECT SWITCH,OPEN	
⚠	BT1	QAB0025-001	LI BATTERY	
	CN761	QGF0508F1-40X	FPC CONNECTOR	
	CN763	QGF0507F3-20X	FFC/FPC CONNECTOR	
	CN764	QGF0305F1-33X	FPC CONNECTOR	
	CN765	QGA1201F2-02X	CONNECTOR	
	OT1	LY43043-001B	SHIELD SHEET	
	OT2	LY43119-001A	SHIELD SHEET,A,B	

****

LCD BL BOARD ASSEMBLY <03>

PW2	YB10324A2-02	LCD BL BOARD ASSY,C	
	YB10324B2-02	LCD BL BOARD ASSY,A,B	
IC751	MIP805	IC,C	
Q7501	2SC3647/ST/-X	POW TRANSISTOR	
Q7502	2SC3647/ST/-X	POW TRANSISTOR	
Q7503	DTA144EE	TRANSISTOR	
	or RN2104	TRANSISTOR	
	or UN9113J	TRANSISTOR	
Q7504	2SC4617/QR/-X	TRANSISTOR	
D751	1SS376	DIODE,C	
R751	NRSA63J-104X	MG RESISTOR,C	100kΩ,1/16W
R7501	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R7502	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R7503	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R7506	NRSA63J-473X	MG RESISTOR	47kΩ,1/16W
R7507	NRSA63J-473X	MG RESISTOR	47kΩ,1/16W
C751	NBE20JM-106X	T CAPACITOR,C	10µF,6.3V
C752	NBE20JM-106X	T CAPACITOR,C	10µF,6.3V
C753	NCB31HK-222X	CAPACITOR,C	0.0022µF,50V
C754	NCB31HK-222X	CAPACITOR,C	0.0022µF,50V
C7501	NCZ1016-120X	CAPACITOR	12pF,2kV
C7503	NFV41HJ-223X	MPPS CAPACITOR	0.022µF,50V
C7504	NCB31EK-103X	CAPACITOR	0.01µF,25V
C7505	NBE20JM-226X	T CAPACITOR	22µF,6.3V
L751	NQLZ011-681X	COIL,C	680µH
L752	NQL315K-100X	COIL,C	10µH
L7501	NQLZ010-680X	COIL	68µH
L7502	NQLZ010-220X	COIL	22µH
T7501	NQS0048-001X	SW TRANSF	
CN751	QGF0506F2-32X	FPC CONNECTOR	
CN752	QGF0505F1-24X	FPC CONNECTOR	
CN753	QGA5002F1-02X	CONNECTOR	
CN754	QGF0505F2-06X	FPC CONNECTOR,C	
⚠ F751	NMFZ007-R20X-K	FUSE,C	T0.2A
⚠ F7501	NMFZ009-R375XJ1	FUSE	T0.37A
OT1	LY41726-001A	PLATE(EARTH)	

# ⚠	REF No.	PART No.	PART NAME, DESCRIPTION	

****

CCD BOARD ASSEMBLY <04>

PW	YB10316A-01	CCD BOARD ASSY	
Q5001	2SC3931/CD/-X	TRANSISTOR	
R5001	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W
R5002	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
R5003	NRSA02J-104X	MG RESISTOR	100kΩ,1/10W
R5004	NRS181J-0R0X	MG RESISTOR	0Ω,1/8W
R5006	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
R5007	NRS181J-0R0X	MG RESISTOR	0Ω,1/8W
C5001	NCB21CK-104X	CAPACITOR	0.1µF,16V
C5002	NBP41DM-106X	T CAPACITOR	10µF,20V
C5003	NCB21CK-104X	CAPACITOR	0.1µF,16V
C5004	NBE21AM-106X	T CAPACITOR	10µF,10V
C5005	NCB11EK-104X	CAPACITOR	0.1µF,25V
C5006	NCB21CK-104X	CAPACITOR	0.1µF,16V
C5007	NCB21HK-222X	CAPACITOR	0.0022µF,50V
C5011	NCB21CK-105X	CAPACITOR	1µF,16V
L5001	NQL315K-100X	COIL	10µH

****

JUNCTION BOARD ASSEMBLY <05>

PW2	YB10314A2-01	JUNCTION BOARD ASSY	
D571	SML-010MT-X	LE DIODE	
SW571	NSW0120-002X	PUSH SWITCH	
CN571	QGF0508F1-34X	FPC CONNECTOR	
CN572	QGF0507F3-15X	FFC/FPC CONNECTOR	
CN573	QGF0505F2-11X	FPC CONNECTOR	
CN574	QGF0505F2-06X	FPC CONNECTOR	

****

JACK BOARD ASSEMBLY <06>

PW1	YB10314A1-01	JACK BOARD ASSY,A	
	YB10314A1-02	JACK BOARD ASSY,B,C	
IC501	BA10358F-XE	IC	
IC502	RS-171-X	IC(PHOTO SENSOR)	
Q501	RPM-22PB	PHOTO TRANSISTOR	
D501	MA8068	ZENER DIODE	
D502	MA8068	ZENER DIODE	
D504	MA8068	ZENER DIODE	
D505	MA8068	ZENER DIODE	
D506	EMZ6.8N	ZENER DIODE	
D507	EMZ6.8N	ZENER DIODE	
D508	EMZ6.8N	ZENER DIODE	
R501	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R502	NRSA63J-684X	MG RESISTOR	680kΩ,1/16W
R503	NRSA63J-182X	MG RESISTOR	1.8kΩ,1/16W
R504	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R505	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
R506	NRSA63J-824X	MG RESISTOR	820kΩ,1/16W
R507	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
R508	NRSA63J-683X	MG RESISTOR	68kΩ,1/16W
R509	NRSA63J-822X	MG RESISTOR	8.2kΩ,1/16W
R510	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R511	NRSA63J-302X	MG RESISTOR	3kΩ,1/16W
R512	NRSA63J-470X	MG RESISTOR	47Ω,1/16W
R513	NRSA63J-101X	MG RESISTOR	100Ω,1/16W
R514	NRSA63J-101X	MG RESISTOR	100Ω,1/16W
R515	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R516	NRSA63J-221X	MG RESISTOR	220Ω,1/16W
R517	NRSA63J-331X	MG RESISTOR	330Ω,1/16W
R518	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R519	NRSA63J-331X	MG RESISTOR	330Ω,1/16W
R520	NRSA63J-331X	MG RESISTOR	330Ω,1/16W
R524	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R525	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R526	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R527	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
C501	NBE21AM-335X	T CAPACITOR	3.3μF,10V
C502	NCF31CZ-104X	CAPACITOR	0.1μF,16V
C503	NCB31EK-153X	CAPACITOR	0.015μF,25V
C504	NCB31EK-153X	CAPACITOR	0.015μF,25V
C506	NBE21AM-106X	T CAPACITOR	10μF,10V
C509	NBE20JM-226X	T CAPACITOR	22μF,6.3V
C514	NCB31HK-103X	CAPACITOR	0.01μF,50V
C515	NCB31HK-103X	CAPACITOR	0.01μF,50V
L501	NQR0251-004X	FERRITE BEAD	
L502	NQR0251-004X	FERRITE BEAD	
L503	NQR0251-004X	FERRITE BEAD	
HD1	LY32086-001B	HOLDER(J.PWB)	
WR1	WJJ0207-002A	E-SI C WIRE C-C,CN501-MAIN CN102	
J501	QNS0078-001	3.5 JACK	
J502	PEMC1203	MINI JACK	
J503	QND0004-001	S JACK	
J504	QNS0152-001	2.5 JACK	
TL501	YQ43810-1-1	CONTACT(LIGHT)	
TL502	YQ43810-1-1	CONTACT(LIGHT)	
CN501	QGA1002F1-09X	CONNECTOR	
CN502	QGF0507F3-14X	FFC/FPC CONNECTOR	
OT1	LY30018-023A	SPECIAL SCREW,X4	
OT2	LY30017-023A	SPACER-B,X2,B,C	

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION